REGRESSION IN THE SERVICE OF THE EGO, COGNITIVE CONTROL, AND SEXUAL IDENTIFICATION

By

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ABSTRACT

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The psychoanalytic concept "regression in the service of the ego" was submitted to detailed theoretical and formal scrutiny in an attempt to reformulate the concept in terms more clearly meeting empirical requirements. Instead of speaking of an ongoing process which must, then, be tapped while it occurs--as previous work had done--the reformulation presented herein spoke of a complex ability which exists as a disposition in individuals. This ability was thought to be composed of three independent components, or component abilities: regression, oscillation, and progression. Each of these three was independently defined and given an independent translation. The measure of regression was a multiple-choice, group Rorschach especially designed for this study. It presented a number of alternative response choices to the subject, who was to choose from them those responses which seemed to resemble the Rorschach blots. Some of the alternatives were primary process associated responses and

others were neutral, according to an established criterion. The oscillation measure was the Stroop color-word interference task, and time to complete this task was considered to be a measure of ability to oscillate. The progression measure was a sentence-writing task designed for this study. In the task, the subject was presented with a number of sets of words, four in a set, with some sets considered to be primary process associated and others considered neutral. The subjects were to construct sentences using, in each case, all four words of a set in every sentence.

Deductions from psychoanalytic theory suggested a relationship between two of the componants of "regression in the service of the ego" and sexual identification. Hypotheses were advanced to the effect that regression would be associated with predominantly feminine identification, while progression would be associated with predominantly masculine identification.

In addition, cognitive control style was estimated from one's score on the color-word interference task and was added as a variable to allow for exploration of individual differences which might present themselves.

Subjects were 81 undergraduate students, 47 males and 34 females, enrolled in two introductory psychology courses at Michigan State University.

The results regarding the three component measures and the relationships among them generally followed expectations. Each task was seen to be a highly reliable one, to measure a fairly unitary function, and to measure an independent variable (except for a small, but in any case, significant correlation between the oscillation and progression measures, although further analysis indicated that this correlation was produced by the results of one sample sub-group). Nevertheless, some important questions concerning the validity of these measures were raised when it was found that, on both the regression and progression tasks, ability to function with primary process and with neutral material were highly correlated. Thus, the question is left untested and unresolved whether (a) the tasks were invalid or (b) the two kinds of durable functioning measured are, *in actu*, correlated.

The hypotheses concerning sexual identification were not confirmed. Some tentative findings did emerge, though, regarding the relationships among progression, sexual identification, sex, and cognitive control. It was proposed that the variable seeming to be related to the progression measure was identification with same sex versus identification with opposite sex parent. Some theoretical speculations for the findings were offered and possible avenues for future work were described.

Approved: Albert I. Rabin
Major Professor

Date Sept 22, 1961

for Phyllis

Who even the dead, yet hath his mind entire!
This sound came in the dark
First must thou go the road
                                        to hell
And to the bower of Ceres' daughter Proserpine,
Through overhanging dark, to see Tiresias,
Eyeless that was, a shade, that is in hell
So full of knowing that the beefy men know less than he,
Ere thou come to thy road's end.
                                   Knowledge the shade of a shade,
Yet thou must sail after knowledge
Knowing less than drugged beasts....

Ezra Pound

from Canto XLVII
of The Fifth Decad of Cantos

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The work to follow owes gratitude to many individuals, and, as is so often the case, the author must leave some unmentioned. Of those, however, whose names could not possibly be omitted here, first and foremost, of course, is the dissertation committee: Dr. Albert I. Rabin (chairman), Dr. Bill L. Kell, the late Dr. Gerald F. King, Dr. Stanley Ratner, and Dr. Harold T. Walsh. These men, both individually and as a group, offered guidance and suggestions under the difficult circumstances of work done partly *in absentia*, and their aid was always constructive, their suggestions and criticisms meaningful. The author wishes to express his appreciation for all that they have done.

It would not seem amiss to take this opportunity to single out one person among those aforementioned as the recipient of the author's special gratitude: Dr. Albert I. Rabin, who has given friendship, guidance, and patient understanding these past five years.

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The author's appreciation is also due to Albert Zavala for his assistance in scoring material and preparing some of the data for processing on an electronic computer, to Donald Wilkins for his consultation regarding a computer program appropriate to the needs of the study, and to the crew of the MISTIC computer laboratory at Michigan State University for processing some of the data.

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Finally, a word should be said here about the unfortunate passing of one of the members of the dissertation committee, Dr. Gerald F. King. Dr. King's contributions to this work were immeasureable through all stages of its growth and completion. As many of the staff and students at Michigan State University came to know, Dr. King was always ready with an encouraging ear and an astute thought regarding any research project. It is with great sadness that the field of psychology, his colleagues, his students, and above all, his friends -- among whom the present writer was proud to number himself -- must come to accept this truly unbelievable and untimely loss.

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CHAPTER 1

In recent years more and more attention has come to be paid to the description and understanding of the structure and function of the ego. Whereas earlier writings in the psychoanalytic literature tended to focus on the nature of the id and impulse-life in general, these new developments, especially apparent in the writings of the "ego psychologists" (e.g., A. Freud, 1936; Hartmann, 1950; Kris, 1952; Hartmann, Kris, and Lowenstein, 1946; Rapaport: 1951a, 1951b), have done much to bring psychoanalytic theory into a closer relationship with the general stream of psychological investigation. The latter being typically interested, in the main, in the areas of learning, cognition, perception, and the like, seldom found it necessary to invoke the hypothetical construct of the unconscious, the cornerstone of psychoanalytic theory. Consequently, a rather wide breach existed between psychoanalytic and general psychological approaches to the understanding of human structure and function. With the new developments in psychoanalytic theory, however, great strides were made and are presently being made to close the gap between the two disciplines.

Ego psychology has drawn attention to a wide variety of operations which fall within the realm of the ego. One must now speak not only of the manifold ways in which the ego serves to bring under its sway the threatening aspects of impulse-life through its defensive functions, but also of the consistent, enduring patterns, the so-called adaptive ego functions, which characterize the manner of organizing the world, of coping with reality and the environment's demands, and of allowing for partial and sometimes complete expression of impulses. It is especially in respect of these latter that the meeting of psychoanalysis and general psychology has been fostered. This is not to say that the study of defenses and of psychopathology may not be seen as a common ground for inquiry by the two disciplines. Quite the contrary. However, for the understanding of generic processes -- as, for example, cognition -- investigations of the adaptive functions of the ego and their relation to the large corpus of experimental research data which has emerged from the many years of work in psychological laboratories and the "academy" would appear to be more fruitful as avenues toward a rapprochement.

From this general framework, the present theoretical and empirical investigation takes its approach.

Purpose

The work to follow has a number of goals which can be enumerated. However, it should be mentioned that this particular study, since its inception, has been and still is conceived of as exploratory in nature. That is to say that the writer conceives of the present investigation as the initial one of a program of research. Some of the immediately projected and more long term aspects of this program will be outlined in a later section.

The purposes then of this phase of the research -- given in the order, not necessarily of their importance, but of their presentation -- are:

1. To explicate the meaning of the concept "regression in the service of the ego" as it has come to be understood within the framework of psychoanalytic ego psychology;

2. To offer a reformulation of this concept in terms which appear to be more appropriate to the necessary operational translation of it, and, in so doing, to bring forth certain criticisms of the formulation

of the concept which has heretofore been prevalent;

3. To describe possible individual difference variables as, for example, cognitive control styles, which, if they are active, may serve to qualify the generalizability of "regression in the service of the ego";

4. To describe operations which may, given their validity, measure "regression in the service of the ego" in respect of the reformulation herein offered for the concept;

5. To show a relationship between "regression in the service of the ego" and the psychoanalytic concept of sexual identification; and,

6. To outline a program of further research in this general area.

Primary process and secondary process

Among the earliest of Freud's conceptions regarding the psychic functions was the distinction which he drew between primary and secondary processes. The primary process was the basis of the dream work, and it held sway in the unconscious. The secondary process, on the other hand, produced the more familiar discursive, "normal," thinking, and its realm was the preconscious and conscious. The primary process produced thoughts which seemed, on the surface, bewildering and irrational, while those of the secondary process were perfectly rational (Freud, 1900, p. 597). In terms of the distribution of psychic energies or cathexes, the primary process "...is directed towards securing the *free discharge* of the quantities of excitation, while the *second* system, by means of the cathexes emanating from it, succeeds in *inhibiting* this discharge and in transferming the cathexis into a quiescent one... employing only a small part on displacement..." (Freud, 1900, p. 599). With respect to the aims of these two types of mental functioning, Freud (1911, p. 14) further elaborated the distinction between them. He stated: "The sovereign tendency obeyed by these primary processes is... the pleasure-principle.... [They] strive towards gaining pleasure; from any operation which might arouse unpleasantness... mental activity draws back.... [Whereas the task of the secondary process is] to form a conception of the real circumstances in the outer world and to exert itself to alter them....what was conceived of was no longer that which was pleasant, but that which was real, even if it should be unpleasant. This [is the] institution of the *reality principle*...."

Schafer (1954, p. 77) comprehensively summarizes the nature of and the distinctions between these two processes:

> Secondary process thinking is predicated upon delay of immediate, direct, unmodulated discharge of impulses; it seeks such detours toward gratification as are appropriate to the individual's total prevailing life situation; it is selective and modulating. Also, secondary process thinking is oriented toward reality and logic; it is reflective and forward-looking; it maintains the boundaries between self and non-self. Primary process thinking, in contrast, is indifferent to reality and logic and is organized around the vicissitudes of drives; it is oriented toward immediate, direct, and uncontrolled discharge of impulse; it is fluid, undiscriminating and unreflective; it ignores relations of time, place, and identity, and causality. In addition, primary process thinking tends to fuse self and non-self; and it teems with condensations, displacements, physiognomic impressions and magical notions.

The terms "primary" and "secondary" are not, it should be noted, meant to connote any difference in the importance of the two processes. Rather, they refer to differences on the dimensions of temporality ("primary" being genetically earlier), structure ("primary" using those portions of the psychic apparatus which are, topographically speaking, more primitive), and form ("primary" being organized and expressing itself in ways that are more primitive).

Primary process and secondary process are to be thought of in relative terms. That is, although one may distinguish between the two with respect to their differing characteristics, the presence of or the predominance at any one time of one does not negate the presence of the other. The two processes, in their pure forms, but from a strictly theoretical viewpoint, are opposite extremes of one continuum. The distinction, then, is one concerning the relative amount of primary and secondary process at any one point along the continuum. However, in the functioning of the psyche, according to this view, both processes are always present and active to some extent. As Freud (1900, p. 603) said: "It is true that, so far as we know, no psychical apparatus exists which possesses a primary process only and that such an apparatus is to that extent a theoretical fiction." Later investigators in this area (Hartmann, 1950; Rapaport, 1951a; Kris, 1952; Holt, 1956) all concur in this interpretation.

Shifts in the level of psychic functioning: regression and progression. For various reasons and under a variety of conditions, shifts among levels of psychic functioning occur, where shifts refers to movement, or change in the relative balances in the determining configurations, on the continuum from primary to secondary process. As Schafer (1954, p. 80) puts it:

> These changes may be subtle and brief, as in ordinary daytime experience, or gross and more or less fixed, as in a severe schizophrenic condition, but

> they are a constant aspect of psychic life. Whether stimulated by outer duress and temptation or by inner privation and conflict, these shifts reflect the individual's never ceasing and never altogether resolved -- though not necessarily always tumultuous -- striving for adaptation and gratification. The shifts in the level of psychic functioning are never total shifts but rather vary in scope....

Such shifts may be in a direction toward the primary process pole of the continuum and away from the secondary process pole, or vice versa. When the shift is toward the primary process pole, one describes the process as regression; when the shift is in the opposite direction, toward the secondary process pole, it is called progression. Regression, then, is a movement toward primitivity in psychic functioning. In terms of relative amounts, the more one regresses, the more will primary process functioning predominate; the more one progresses, the more will secondary process functioning predominate.

Although we have described regression in a general way, a more precise understanding of it requires reference to Freud's "economic" model and to the balance of cathexes and countercathexes.

The ego directs countercathexes against id material, in the form of primary process images and thoughts, which is pushing for expression from the unconscious. At the same time, the ego also directs countercathexes against disguised id material or id derivatives, which reside in and push for expression from the preconscious. Again, the ego also invests cathexes in preconscious material which -- if the ego withdraws its cathexes from it and/or if this preconscious material is infused with a high proportion of id derivative material -- may become invested with id energy. When preconscious material is invested with cathexes from the id, it may be drawn back into the unconscious and thereby fall under the sway of the primary process. The latter is the basis of the conception that preconscious remnants of experiences or day residues become part of dream material and are thence elaborated by the dream work (Kris, 1952). The reverse of this process may also occur, that is, unconscious material may become preconscious, usually in the form of id derivatives more or less closely resembling the raw material itself, by having been invested with ego cathexes. This movement of an unconscious impulse or image into the preconscious may occur in a variety of ways.

It may occur if the investment of mobile id energy is particularly strong and the ego's ability to countercathect is weak; or, if the need for repression or censorship has been reduced, thereby making the id material more acceptable; or, if an id impulse is particularly pressing and meets strong countercathexis from the ego, the impulse may enter by means of a symptom as a substitute-formation; or, unconscious material may, in some cases, by-pass the preconscious altogether and enter consciousness directly, as in a perception which is hypercathected, i.e., an hallucination (Kris, 1952). This last is, of course, unusual in the course of normal functioning. However, preconscious material -- in contrast to the just mentioned unconscious material -- usually enters consciousness by means of an hypercathexis, or attention-cathexis (Rapaport, 1951b).

Since, in the normal state of affairs, the preconscious is organized in terms of secondary process as is the conscious realm, while the primary process constitutes the organizing principle of the unconscious, when a regressive shift occurs, "a preconscious thought 'is entrusted for a moment to unconscious elaboration'" (Kris, 1952). Another way of stating this is to say that the effects of the primary process can be seen upon preconscious content. When this occurs, it is typically the case that the energy which is being discharged is id energy, i.e., non-neutralizied libido and aggressive energy. On the other hand, when the secondary process is dominant, as it usually is in preconscious and conscious functioning, the energy being used is bound or neutralized libido and aggressive energy.

In normal, waking experience, when the ego is in full control and countercathexes are well maintained -- omitting here, for the moment, the continual shifts in psychic levels earlier mentioned -- then primary process material does not move out of the unconscious and into the preconscious or conscious. It is only when, for one of a number of reasons, the ego is weak or relinquishes control that this occurs. But, this is not to say that the *effects* of the unconscious are absent merely because unconscious material *per se* is not in the preconscious. "On the contrary, the Ucs is living and capable of development and maintains a number of relations to the Pcs, among them that of co-operation..." (Freud, 1915, p. 122). At the same time, certain derivatives of impulses are always to a greater or lesser extent that is, present in the preconscious. "Of such a nature are the phantasy-formations of normal persons as well as of neurotics, which we have recognized as preliminary phases in the formation both of dreams and of symptoms..." (Freud, 1915, p. 123).

In fantasy, then, we have one situation in which, even in normal persons, some of the ego's control may be relinquished. There are other situations also, as for example, in severe psychopathology, or in sleep itself when the dream-work operates; again, during the periods just before sleep and immediately before waking when preconscious material is elaborated by the primary process, in hypnogogic and hypnoidal states, during intoxication, and so on. However, it should be noted that Freud mentioned a so-called "cooperation" between the Ucs and Pcs as one of a number of possible relations between the two.

Regression in the service of the ego

In 1915, Freud wrote:

> Co-operation between a preconscious and an unconscious impulse, even when the latter is subject to very strong repression, may be established if the situation permits of the unconscious impulse operating in harmony with one of the controlling tendencies. The repression is removed for the occasion, the repressed activity being admitted.... In respect of this single constellation the unconscious becomes ego-syntonic, falls in line with the ego, without any change taking place in the repression otherwise. The effect of the Ucs in this cooperation is unmistakable; the reinforced tendencies reveal themselves as, in spite of all, different from normal -- they

> make possible achievements of a special perfection, and they manifest a resistance in the face of opposition similar to that of obsessional symptoms (pp. 126-127).

Now, although Freud never went on to greatly amplify this idea, though it is not very different from some of his formulations concerning wit and humor (Freud, 1905), the "ego psychologists" have in recent years focused attention on it. Through the further elaboration and description of the functions of the ego, they have come to recognize that certain regressive shifts may serve adaptive functions also and not only be a product or symptom of psychopathology. Kris (1952) and others have underscored the importance and even the necessity of such "adaptive regression" (Holt, 1959) in a number of seemingly divergent areas. Schafer (1960) mentions the following which, it can be assumed, is not an exhaustive listing: wit and humor and the understanding of them, artistic creativity and the audience's response to it, productive fantasy and imaginative processes, problem solving, sleeping and dreaming, capacity for orgastic experience, ego-building identifications, motherliness, empathy, intimacy and love, the therapeutic process including both patient and therapist, the hypnotic process and hypnotic states, response to and interpretation of projective test material, and so on.

From the sheer weight of the number and diversity, not to mention importance, of areas in which this special regressive shift is said to be necessary, a detailed examination of it would appear to be demanded. It was Kris (1952) who first called this vital process "regression in the service of the ego," stating:

> The general assumption is that under certain conditions the ego regulates regression, and that the integrative functions of the ego include voluntary and temporary withdrawal of cathexis from one area or another to gain improved control (p. 312).

Although this is a generally accepted statement of what is meant by the concept, it has recently been delineated in a much more explicit fashion by Schafer (1960). Schafer, in addition to being an extremely learned and highly respected theoretician, is one of the more prominent expositors of psychoanalytic ego psychology. Therefore it would not seem amiss to consider his most recent explication of the meaning of "regression in the service of the ego" as quite definitive. We shall present his treatment of it, then, as fully as space allows. Following that, we shall critically analyze and evalute those portions of it which seem relevant to the present study.[1]

The present meaning of the concept. Schafer does not offer a formal definition of "regression in the service of the ego," but rather indicates its meaning through a number of descriptive statements. He writes:

> ... it refers, then, to the ego's permitting relatively free play to the primary process in order to accomplish its adaptive tasks. The ego detours through regression toward adaptation. It is warranted to speak here of regression insofar as primary process or its close derivatives, normally warded off, are allowed a place in conscious experience; and it is warranted to speak of the process being in the service of the ego insofar as the regression serves ego interests (such as being creative or empathic), is relatively easily reversible, and is amenable to productive working over by the ego in terms of its adaptive pursuits (p. 125).

And, again:

> Regression in the service of the ego is a partial, temporary, controlled lowering of the level of psychic functioning to promote adaptation. It promotes adaptation by maintaining, restoring, or improving inner balance and organization, interpersonal relations, and work. It is a process which increases the individual's access

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[1] In the discussion which follows, all references to Schafer and all quotations without accompanying citations, save page numbers, may be taken to refer to Schafer (1960) unless otherwise noted.

> to preconscious and unconscious contents, without a thoroughgoing sexualization or aggressivization of major ego functions, and therefore without disruptive anxiety and guilt. In other words, the primary and secondary (relative) autonomy of higher ego functions is not impaired; the encroachment of id tendencies is circumscribed. The process implies central controlling functions, in the ego, which may suspend some other functions, such as defensive functions and logical functions, and may emphasize genetically primitive mechanisms, such as projection and introjection (pp. 122-123).

The foregoing statements may be taken to constitute a fairly comprehensive and accurate description of the meaning of "regression in the service of the ego" as it is presently understood. In order, then, to see more clearly what is being said in these statements, we shall take the liberty of recasting them in outline, and somewhat abbreviated form. In doing this, however, we shall be careful to maintain Schafer's meaning, as we understand it. Thus:

> Regression in the service of the ego is a process which
>
> 1. is accomplished in order to promote adaptation, and
> 2. does promote adaptation,
>
> through
>
> 3. a partial, and
> 4. a temporary, and
> 5. a controlled lowering of the level of psychic functioning,
>
> so that
>
> 6. primary process or its close derivatives (i.e., preconscious and unconscious contents) are allowed a place in conscious experience;

that is, "regression" occurs, although
7. the encroachment of id tendencies is circumscribed, and
8. there is no accompanying disruptive anxiety and guilt;

further, this "regression"
9. serves ego interests, and
10. is relatively easily reversible, and
11. is amenable to productive working over by the ego.

Analysis, critique, and some unanswered questions. Certain aspects of this description will not require our attention, for they refer to things outside the scope of our present inquiry. Thus, those descriptive statements which refer to the purposes or goals of "regression in the service of the ego," or which refer to accompanying emotional states of it, will not be focused upon here. Referring to our outline of Schafer's description, then, parts 1, 2, and 9 -- describing the purposes and goals of the process -- and part 8 -- concerning the accompanying emotional states -- will not be mentioned hereafter. On the other hand, the remaining statements, which refer to attributes of the process itself, will constitute the basis for a detailed study in an attempt to explicate their meaning.

Assuming, along with Schafer, that "regression in the service of the ego" does promote better adaptation, one may rightfully ask: what are the limits of the time-span allowed by the theory within which the resultant adaptation may take place? Another way of asking the same question is: how long, from the time the regression begins, may the time period be until the total process comes to a discernible "end" -- i.e., better adaptation is achieved -- and still be considered one total process? Schafer has stated that the intrinsically adaptive nature of "regression in the service of the ego" may not be seen during its initial stages, that "...often the initial process seems to be more one of pathological regression, and only subsequently may the ego show resiliency and impress the regressive experience into its service" (p. 132). Let us suppose then, for example, that an alcoholic writer goes on an extremely destructive "binge" for a time. Then, agonized and tortured with pain and the constant onrush of blatant primary process manifestations, he experiences deeply meaningful insights about himself and others like him. After some months, he finally manages to straighten up and pull himself together. He rests and recuperates for a time -- and then, he writes a brilliant and moving play or novel about his experiences and the insights gained therein. That such a series of events could very well occur and is not unrealistic may be seen by reference to such outstanding writers as Poe, O'Neill, F. Scott Fitzgerald and Dylan

Thomas, to name but a few.

Can such an experience which, only months after the initial, though pathological, regression, brings forth a valuable, socially accepted end product and presumably better adaptation be called "regression in the service of the ego"? One might argue, of course, whether better adaptation was a result; again, one might wonder whether the initial regression was a prerequisite. These issues, though important and germane, are empirical ones to be investigated and cannot be settled here. But, the vital question under discussion concerns the lack of specified time limits in the theory. We might all agree that, if the process extends for a time period of seconds, minutes, or, perhaps, even hours, it may qualify as *one* process. But, what if better adaptation does not occur for days, weeks, or years? A ready answer to this might point to the obvious: that "regression in the service of the ego" is, by its nature, a *temporary* psychic process -- this is, in fact, stated in part *4* of the above outline of Schafer's description.

But, this "obvious" rejoinder brings with it implications of a kind difficult to cope with. Does it not imply that better adaptation *must* occur within a short time span or the process *could not have been* "regression in the service of the ego," that is, that the nature of the process must be judged post hoc? Such a situation leaves the investigator in a most ungainly position, for it would necessitate that he withhold judgment of whether a given psychic process was "regression in the service of the ego" until he was certain that the process was, at least for the time, terminated. But, his judgment of the termination of the process would be dependent upon the appearance of the so-called better adaptation! If this better adaptation did not occur, one could not be sure whether, on the one hand, the process was still going on and had not yet reached its termination, or, on the other hand, was not "regression in the service of the ego" in the first place. We see, then, that we are led to an instance of circularity in the theory. As the theory now stands, without a clear interpretation of the term "temporary," the investigator is faced with the serious dilemma of being unable to decide if the ongoing process is or is not "regression in the service of the ego" while the process is still occurring. The major reason for this dilemma is that there are no clearly stated criteria for the occurrence of it. If, for one reason or another, it is decided that "regression in the service of the ego" is not taking place, then one may counter with:

"But, the results are not yet all in!" On this view, if and only if better adaptation occurs may one say that "regression in the service of the ego" has occurred.

Since it does not seem possible, at this time, to speak of "regression in the service of the ego" in _sequential_ terms -- for, as we have said, we have no acceptable statements in the theory regarding the time-limits of the process -- how are we to approach the problem of measurement with respect to the process? We shall leave this question open-ended for the present, in order to continue our consideration of other aspects of the theory as it now stands.

In part _3_ of the outline of Schafer's description, he proposes that a "partial lowering of the level of psychic functioning" occurs. The obviously important term here is "partial," and one would assume with little doubt that Schafer is attempting to differentiate, by using this qualifier, the process under consideration from some other process or processes which might be described as "total" lowerings of the level of psychic functioning. But, the latter would appear to be non-existent. Even in the depths of the dream, when the dream-work predominates overwhelmingly, there is _some_ secondary process functioning (cf. Freud, 1900, p. 509ff.). And Schafer himself (1954, p. 80) states: "The shifts in the level of psychic functioning are never total shifts but rather vary in scope; even the most regressed schizophrenic... retains capacities and abilities... characteristic of his premorbid level of functioning."

It would appear that the qualifier "partial" is unnecessary for it is redundant in this context. Merely saying that a shift has come about in the level of psychic functioning is enough to fully connote its partial character, since it could not be otherwise.

We shall skip consideration of part 4, Schafer's use of the term "temporary," since we have already discussed the problems attendant upon it earlier, and there seems no need to further labor the points which were examined then. Instead, we turn directly to part 5 of the outline.

In this section, Schafer, following Kris' initial formulation, is emphasizing the continued ego-mastery which is taken to be characteristic of "regression in the service of the ego" and which, at least in part, differentiates it from pathological regression. That is, the ego "...may use the primary process and not only be overwhelmed by it" (Kris, 1952, p. 312). Here we see a statement of one of the very basic attributes of the process and, as such, it must be accepted if one is to admit of the presence of "regression in the service of the ego" in the first place. Considerations of time-limits set aside for the moment, if the ego is overwhelmed by the primary process and/or if the ego does not -- or, more accurately, cannot -- use the primary process material, then there can be no sense in which the process is "at the service of the ego." It is exactly the ego's use of the primary process and its ability to gain psychological distance from the primary process which defines the so-called "progressive" phase of the overall function.

Thus, when Schafer speaks of a "controlled lowering of the level of psychic functioning," he is apparently equating this with the _active_ role of the ego in the process, which role "is demonstrated by the fact that the creative regression is always accompanied or succeeded by critical, reality-oriented and communication-oriented evaluation and modification of the primary process material" (1954, p. 81). But -- and this is the point at which Schafer appears to be somewhat unclear -- even though it is quite acceptable to attribute "control" to the overall process of "regression in the service of the ego," this merely means that progression takes place as one necessary aspect of the overall process. To say that the lowering of the level of psychic functioning is "controlled" is to say that, along with or following the psychic process of regression, _another_ psychic process -- namely progression -- also occurs. Schafer could not mean that the psychic process of regression is itself controlled, for then his earlier quoted statement -- that "often the initial process seems to be more one of pathological regression" -- becomes meaningless.

The quality of "control" cannot, then, refer to the regression itself, but is, instead, a quality of the overall process of "regression in the service of the ego." Kris (1952) has, in fact, emphasized the essentially passive nature of the regressive phase of the process, or, as he refers to it, the "inspirational" phase. He stressed that inspiration seems to be most often felt by the individual as coming from the outside, a feeling of being acted upon, rather than of being active. He wrote: "The feeling... reminds the individual of a phase in his development in which passivity was a precondition of total gratification..." (p. 317).

Therefore, in stating that the lowering of psychic functioning -- that is, the regression -- is controlled, Schafer would appear to be stating only that both regression and progression occur in the overall process of "regression in the service of the ego." It should be noted, however, that this does not distinguish between the regression of "regression in the service of the ego" and any other psychic process of regression.

It follows, then, that observing only the regressive phase of the total process allows one to make no statement as to whether this regression will or can be pressed into the ego's service. There is no need, then, to speak of controlled regression, for its meaning has already been given when one speaks of progression as a necessary aspect of "regression in the service of the ego"; and to speak of controlled regression in any other sense than this seems meaningless. The term "controlled" would, therefore, be better omitted from the description of the concept.

As we shall subsequently see, however, the lack of clarity on this issue has made for important difficulties in the attempts to give operational meaning to "regression in the service of the ego." For, in distinguishing between pathological regression and the so-called "creative regression" by attributing the quality of "control" to the latter, Schafer seems to obscure the more basic concept of psychoanalytic theory that psychic regression is psychic regression regardless of the context within which it takes place, and that all types of regression are basically the same (Freud, 1900).

We next come to part 6 of the outline of Schafer's position. This part presents, in a clear and straightforward manner, the essential definition of the term "regression." That is, regression may be said to have occurred when "primary process or its close derivatives are allowed a place in conscious experience." This definition follows directly from psychoanalytic theory and is the one which will be adopted by this study.

In part 7, however, we are once again faced with a difficulty in meaning. Schafer states that "the encroachment of id tendencies is circumscribed." What do we find out from the term "circumscribed"? One must assume that Schafer uses it to somehow differentiate -- as he attempted to do with "partial" and "controlled" -- the process from some other process(es). Sadly, though, this term does not succeed in doing so -- in fact, it does not even differentiate it from "thought processes" in general. Referring to Schafer (1954) on this topic, we find the following statements:

> ... it is not implied that the total personality is actively involved in these shifts of psychic level during the Rorschach test.... The Rorschach response process must be thought of as being like the dream, the artistic creative process, or any thought process in this regard: it is an experimental and tentative form of action using small quantities of energy.... In other words, dreams and Rorschach responses are or may be microscopic expressions of macroscopic trends and conflicts in the personality (p. 105).

And, again:

> These creative regressions are circumscribed, small-scale affairs.

> They may parallel gross, psychopathological regressions in many respects, and may reflect the play of large scale forces within the personality, but typically they are limited to expression in thought and feeling (p. 81f).

Therefore, if "circumscribed" is meant to differentiate the process from other psychic processes of thought and feeling, this obviously is not accomplished. If, on the other hand, "circumscribed" is being used to characterize the process as a psychic one (as opposed to a behavioral one?), then it is unnecessary from the outset, for this was assumed at the very beginning, and the term "psychic process" would seem to suffice. Again, as with the previously discussed qualifiers, we are forced to conclude that the inclusion of the term "circumscribed" is unnecessary.

Part 10 states that the regression "is relatively easily reversible." This statement, however simple it may appear, demands close attention. First of all, we must question the meaning of "relatively easily" here. What might the difference be between two regressive processes -- one of which is easily reversed while the other is reversed only with difficulty, but both of which finally do become reversed -- in any terms which might lend themselves to systematic measurement? It would appear that such a difference would most likely be investigated through measurement of a time-variable, so that the faster the regression was reversed, the easier it must have been to reverse. This, however, does not seem satisfactory since there may well exist various "styles" of "regression in the service of the ego." That is, one individual may move from regression to progression and back again very quickly in succession, while another individual may regress and remain so for a time and then finally progress. Both of these are "regression in the service of the ego." Therefore, if the time dimension appears unsatisfactory as a criterion of "relative ease" of reversibility, what may be substituted? Certainly, the mere appearance of progression after regression has taken place would also be unsatisfactory. In this regard we need only remind ourselves of the problems mentioned in our discussion of the qualifier "controlled."

We should also take care, here, not to misrepresent Schafer's view. It would seem not unlikely that the sense in which he means "relative ease" concerns the relatively small expenditure of psychic energy necessary to reverse the regressive process. Taken in this sense, however, the measurement of this variable becomes an extremely difficult, if not impossible, task. How might one assess the expenditure of psychic energy?

To the present writer's knowledge, no direct or even indirect measurement of this variable has yet been offered by investigators. As Cattell (1960) writes: "... mental energy is a concept which no clinician, or student of personality dynamics, seems to be able to avoid entirely, yet it is at the same time one which no respectable psychologist can operationally define in a way which justifies continued use of it" (p. 235). Cattell's conclusion to the contrary notwithstanding, this concept is an extremely useful one, in the form of an intervening variable, in psychoanalytic theory. And, although we shall not be able to offer an operational meaning for it, *per se*, we shall, in the next section of this chapter, attempt to show how the concept of energy *deployment* or *cathexis* provides the link for giving operational meaning to Schafer's "relative ease" of reversibility.

What of the term "reversible," specific consideration of which we have so far omitted? The sense in which this term has its most accurate meaning is the conditional one, i.e., "*capable* of being reversed." Once again we may discern the appearance of the problem of time-limits in the theoretical formulation, for one might justifiably ask: When? Are we once more forced to wait until we can see the progressive process occurring before we may pronounce the regression reversible? And if, for whatever reason, we do not ascertain the presence of progression, are we to conclude that the regression was not capable of being reversed? Again, if the individual, at some time in the past, has demonstrated his ability to reverse a regressive process, but at the present time cannot -- and therefore cannot "regress in the service of the ego" on this view -- what can we say about the "reversibility" of the process? We surely have evidence of the individual's capability to reverse the regressive shift -- to wit, that he has reversed it in the past. Another question which arises in this regard concerns the possible use of outside agents, for example, drugs, to reverse the regressive movement. If an individual's shift in psychic levels in a regressive direction is halted by, say, Chlorpromazine -- to name but one well-known agent whose function is reported to be just that -- and the shift is thereafter in the opposite direction, would this qualify the regression as "reversible"? There is, of course, a sense in which it would.

We are faced, then, with a dilemma not so very different from the ones which have been mentioned previously. As this aspect of the description of "regression in the service of the ego" now stands, it must once again be characterized as unsatisfactory. We shall return to this problem shortly, but first let us move on to a consideration of the final part of the outline of Schafer's position, part 11.

In this part, Schafer refers to the process he has termed "progression," and which Bellak (1958) speaks of as the "second phase of oscillation." As Schafer describes it initially, he proposes that "the regression... is amenable to productive working over by the ego in terms of its adaptive pursuits" (p. 125). Subsequently, however, he makes it obvious that it is not the regression, itself, to which he is referring, but the yield of the regression.

> ... observation makes it obvious that a subsequent or alternating progressive or elaborational phase is crucial to an adequate end result, which is to say that the regressive yield is shaped into a conceptually and affectively ordered statement or communication that effectively integrates both the experience and the intent of the artist or wit and the stringencies of the current reality to which he offers his product (p. 126).

This phase of the process, then, is that which is traditionally referred to as the elaborational phase, as opposed to the earlier inspirational one. Of this distinction, Schafer says: "In part, the contrast between the phase of inspiration and elaboration is that between individualized self-searching and self-expression on the one hand, and craft and tradition on the other" (p. 126).

Although we have no argument with the essential meaning of this description of the elaborational phase, further explication is nevertheless necessary. For example, one may wonder what distinction, if any, might be made between the progression in "regression in the service of the ego" and ordinary problem-solving or synthesizing behavior. Now it is fairly obvious that progression refers to the synthesizing, elaborating, and critical scrutiny of material which is more or less close to the primary process, which is "drive-dominated" (Holt, 1959) or which shows the effects of drive domination. Are we to take it, then, that the elaboration, and so on, of material which is not drive dominated does not rightly qualify for the title of "progression," as Schafer means it? If this is the case, then we are faced with an interesting, if by now familiar, dilemma.

That is, in order to ascertain whether an individual is "progressing," according to Schafer's view, we would have to first ascertain whether regression had occurred previously. So, in Holt's (1959) system for the assessment of "regression in the service of the ego" -- or, as he called it, "adaptive regression" -- the scoring of the progressive phase is based on the effectiveness of control over expression of primary process material. The control factor is scored only on those Rorschach responses which manifest primary process. In other words, there is the assumption that "progression" refers to the maintenance of effective control when dealing with primary process material. Yet, we have no evidence that this restriction on the definition of "progression" is warranted, for the essential meaning of this latter phase of the total process may not necessarily be "control" of and over primary process. More broadly conceived of, this latter phase is the general ability to maintain secondary process functioning, and the aspect of "control" therein refers to the use of bound or neutralized energy. Schafer himself seems to be in agreement with this way of viewing "progression" -- and so appears to contradict the position which he takes at other times and which Holt takes -- for he writes:

> An intelligence test helps assess the extent to which secondary process functioning may be maintained in its own right. Because they are relatively structured, impersonal, and consistent with conventional logical requirements and techniques, intelligence test items invite or demand of the individual that he respond in an entirely nonregressive manner. Assessment of ... intelligence-test results... clarifies to what extent there is something partial, temporary, and controlled about the regressive aspects of the projective-test responses themselves (p. 141).

Thus, it may well be that, as we have attempted to show with respect to regression earlier, progression is progression, irrespective of the context in which it is seen. We may, then, speak of progression with material that is "relatively structured, impersonal, and consistent with requirements of logic" and progression with material that is "drive dominated," but both of these processes may be instances of one and the same general process.

In order to empirically test this assertion, however, we must look for operational translations other than those that Holt offers. This is necessary because Holt's method of assessment for progression is not independent of his assessment for regression, though he claims that it is. What, in fact, Holt has shown is the statistical independence of these two processes.

> Rank correlations between the measures of expression and control of primary process were computed. The rho's were negligible (.01 for the males and .24 for the females). These correlations indicate the statistical independence of the two variables as measured here ... (Pine and Holt, 1960, p. 373).

The authors go on to say that this statistical independence does not necessarily reflect "functional independence" in the individual. But, the very important point which is omitted in their discussion is the lack of independence with respect to the measurement of these two processes. It is certainly the case that given the expression -- even in a minimal amount -- of primary process material (i.e., the occurrence of regression), it has been demonstrated that regression and progression are statistically independent. However, what if there is no expression of primary process? How is one to assess progression then? If it were the case that a lack of regression was impossible -- by the nature of individuals or the task's demands -- then our question would have no meaning of course. But, this is obviously not the case, for there are at least some responses on the Rorschach which are not given primary process scores according to Holt's system (Holt, 1959; Holt and Havel, 1960; Pine and Holt, 1960). It is, therefore, conceivable that an individual might produce a Rorschach record, albeit a barren one, which contained no primary process manifestations. Such a rigidly defended person could very well manifest a high degree of progression, i.e., effective maintenance of secondary process functioning, and this could be assessed only if the measurement of progression was not dependent upon the appearance of some regression beforehand.

One might recall here, as an example, the manner in which many of the early Mack Sennett film comedies were created.[2] Sennett and his co-workers had, as a member of their staff, a "wild man." It was the "wild man's" job to provide the others with ideas. He was typically a person who had little ego control and who may have been, in some cases, frankly psychotic, and who would actually free associate or act-out his associations, whatever they were, in front of Sennett and his crew. They would listen intently to what the "wild man" said, and then they would evaluate, integrate, and synthesize the material. The "wild man" was exhibiting regression, but not progression; whereas it seems that Sennett and the others were progressing but not regressing. In a sense, then, this process is analogous -- though not in terms of the content used -- to the intelligence-test situation. In both, material is presented to the individual, who must progress with it, who must maintain secondary process functioning in the face of the material in order to fulfill the demands of the task. Although, as we said, the material used is different as is the product which results, the process, from a structural point of view, seems to be the same.

It would seem to follow, if our remarks on this issue have been cogent, that the defining and operationalizing of this phase of "regression in the service of the ego" would benefit for being put in terms independent from other phases of the process.

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[2] The author is indebted to Dr. G. F. King for this lucid example.

Independent definition: the concept of "components" of a total process. Our analysis has led us to the reconceptualization of what we have up to now called the regressive phase of "regression in the service of the ego." Instead of distinguishing between two types of regression, as Schafer and others have done, we have seen that only one need be postulated. The so-called pathological regression does not appear to be a different process. The distinction between two types of regression is based, not on the difference between the regressive processes *per se*, but on the addition of another variable to the regression. That is, regression is said to be nonpathological when progression occurs also. Were progression not to occur, then the regression would be called pathological.

We may independently define regression as "allowing primary process material or its close derivatives to enter into conscious experience." This covers any and all psychic processes of this character, and it may be said to be one component of the total process termed "regression in the service of the ego." In order, then, for one to say that "regression in the service of the ego" has occurred, one must be able to say that the individual has allowed primary process material or its close derivatives to enter into conscious experience. It should be mentioned, however, that, although this component of the total process is a necessary one, its presence is not sufficient to allow one to conclude that "regression in the service of the ego" has taken place, for the other necessary components of the total process -- about which we shall subsequently speak -- must be present.

The problem on the other side, in respect of progression, is somewhat more difficult to solve. Before we attempt to do so, however, we should like to ask the reader to forget, for the time being, the theoretical question which was earlier raised concerning the content of the material upon which progression is taking place. Let us, then, assume that progression refers to a process which occurs only with primary process material and disregard the possibility that it may be a general process which occurs with primary process and any other kind of material.

Progression may then be defined as "submitting primary process material to analysis, synthesis, elaboration, modification, and transformation into communicable terms"; or, without changing the meaning, "the maintenance of secondary process functioning over primary process material"; or, again, as Pine and Holt (1960) do, "the effective control over primary process material" (p. 373). Now, the reason for lack of independence in the operational translation which Schafer would and Holt does give to this term is that the elaboration, etc., must be done with the very material which has just arisen, or is just now arising, as a result of the individual's regression. Therefore, given the finished product, say a Rorschach response, an estimate must be made of the primary process which went into this response (Pine and Holt, 1960, p. 370). If no primary process can be seen, then no progression can be scored.

Let us suppose, however, that instead of looking for manifestations of primary process in the already elaborated response, the investigator had prior knowledge of the presence of primary process. In other words, we might conceive of the situation in which the investigator had some control over the variable of amount of primary process. If this were the case, then an estimate could be made of the individual's ability to maintain secondary process functioning in the face of it, or to exercise effective control over it, or to submit it to elaboration. Proceeding with this supposition, would we not then be able to independently define and measure progression? It would seem so, since the individual's ability to exercise effective control over primary process material could be assessed from his functioning on this task alone; and, as we have mentioned previously, his ability to regress -- to allow primary process into his conscious experience -- might be assessed from another, different performance on a task which was designed to measure his willingness or ability to be receptive to and consciously aware of primary process manifestations.

If this were possible, it would then allow us to independently measure the regressive and progressive components of the total process "regression in the service of the ego." But, a subtle shift in focus has gone along with this. Whereas the earlier method conceived of a sequential process within a certain, though to be sure, unspecified time period and attempted to infer the beginning phases of the process from end-results, the method being suggested here takes a different view. It conceives of the process as being composed of a number of different functions. Up to now, we have mentioned only two such. In order to complete the process at any one time, then, it follows that the individual must have the ability to perform each of these functions. Given a person who has a great deal of ability -- assuming here that these can be measured quantitatively -- in the necessary components, then, other things being equal, that person will be more likely to have the ability to perform the total process.

It must be noted that this suggested method does not tell us whether, at any one time, "regression in the service of the ego" is taking place. It is not attempting to measure a process. What it will tell us, though, is whether an individual, or group of individuals, has the abilities necessary to perform the total process. And, as we have said, a corollary to this is, the more ability the individual has to perform the process, the more probable it is that he will perform it when the situation or inner needs demand its performance.

Pine and Holt (1960) have stated that "the study of creativity can begin from at least three different standpoints: the process, the product, and the person" (p. 370). Following these authors, we may say that the study of "regression in the service of the ego" -- which is not synonymous with, although it may be a necessary condition for, creativity -- can also be viewed from the same three standpoints. While it is obvious that the method of study suggested here focuses on the person, it should also be noted that it focuses also on the process, though not qua process. Instead of studying the process in its discursive form, it breaks the process into component parts to study them separately and independently. In the past, such analytical procedures seem to have resulted in more discriminating conceptions of other multi-factor processes and in better understanding of them.

This shift in focus has not, however, necessitated any change in the meaning of progression. We may still define it as "submitting primary process material to analysis, synthesis, elaboration, modification, and transformation into communicable terms, i.e., the maintenance of secondary process functioning over primary process material." Not only is this definition independent of the definition of regression, but the measurements of these two components of "regression in the service of the ego" are also independent of one another.

Time-limits of the process. One might have discerned already that a conception of the problem of measurement in terms of components, rather than sequential processes, avoids completely the temporal dimension.

Thus, if we are not interested in whether the individual progresses with the specific material which has arisen from his prior regression, and if, further, we are interested only in an individual's ability to regress and/or to progress without putting these into any ordered relation, then the temporal dimension has no place in the investigation.

Nevertheless, it should be emphasized that this does not avoid the problem of acceptable time-limits for a general theory of "regression in the service of the ego." Though we have succeeded in operationally discriminating between regression and progression, this has been done only for the purposes of better understanding their individual natures and the roles that they play in the functioning of people. It cannot replace the study of the process _in_ _actu_, when it _is_ a discursive, sequential, and ongoing one.

Oscillation: a third component. We noted earlier the close connection between the time dimension and the "relative ease of reversibility" which is said to be characteristic of the shifts in psychic levels during "regression in the service of the ego." It may be recalled, too, that we mentioned the possibility of individual differences existing with respect to the nature of shifts in psychic levels. As we said, one person may move from regression to progression, then back to regression again, many times in quick succession, while another person may remain at one or another level for relatively long intervals. In terms of energy deployment, we would expect the former to be characterized by fluid, readily available psychic energy which would, more than likely, be consistently at the disposal of the ego for the purposes of cathectic investment as well as countercathexis.

Since the absolute amount of energy is assumed to be fairly constant (Gardner, 1961), it would follow that an inverse relationship would exist between the amount of energy available to the ego at any one time for the purpose of cathexis -- more specifically, attention-cathexis (Rapaport, 1951a; Freud, 1900) -- and the amount of energy already committed to cathexes which cannot easily, if at all, be withdrawn. As Klein (1960) comments:

> Consider the consequences of high or low availability of the fixed amount of attention cathexis. One could argue that hysterics have to maintain so high a level of countercathexis (to maintain repression) that there is not sufficient attention cathexis available for new concepts to form (p. 108).

It follows, then, that the more energy invested in defensive operations and/or the more energy invested in the satisfaction of particular drives or drive constellations, the less energy there is available to the ego for selectively distributed attention-cathexes. It must already be apparent that the ability to freely move from one level of psychic functioning to another -- the "relative ease of reversibility" -- would necessitate a relatively high amount of available energy for attention-cathexes. To the extent that such energy is not available, reversibility would be extremely difficult for it would necessitate "borrowing" energy from other, already committed sources.

The important point which must be stressed here is that, from a theoretical frame of reference, there is no reason to assume that any necessary relationship exists between this ability for reversibility and either the ability for regression, as we have defined it, or the ability for progression, as we have defined it. It is quite plausible to assume that a given individual may have high ability to regress or high ability to progress, or both, and nevertheless have low ability to shift back and forth between these two. On the other hand, in order to "regress in the service of the ego," the individual must, according to the theory, be able to regress, and to progress, and to be able to move back and forth between the two.

In other words, it would seem that we have differentiated a third necessary component -- independent of the other two -- in the total process. We call this component "oscillation."

However, in order to adhere to the requirements which we have been imposing on the work of other investigators in this area, we must not only define oscillation independently, but we must also provide an operational translation of it which is independent of those provided for regression and progression. In so doing, we have followed a cue which Holt provided in an earlier publication (Holt, 1956) and which has been more explicitly stated by Pine and Holt (1960). They wrote:

> ... even with the Brick Uses [a test requiring the subject to list as many uses of an ordinary brick as he can in five minutes] there is a parallel to primary process in that high scores are attained by shifts in the direction of thinking, by a style that contrasts with the directed thoughts of the secondary process. But these parallels between the test requirements and primary process thinking are at best tenuous in most or all of the tests used. We would argue, in contrast, that primary process thinking is not directly implicated in the production of responses to these tests, but rather that modes of expression and control of primary process (perhaps beginning in early childhood) become generalized as broad cognitive styles... which are reflected in all areas of thinking. Thus, where tests require flexible and original thinking, and where the control style permits this, thinking can be

> flexible even apart from the (hypothesized) original relation of control directly to primary process thinking (p. 377).

The aforementioned "control styles" have been elaborated by Klein (1950, 1954, 1960), who calls them "cognitive controls" or "cognitive attitudes." These cognitive controls are conceived of as accommodative or regulative structures which take into consideration the demands of the situation on the one hand, and, on the other, the pressing for expression and gratification of drives, so that their function may be seen as the "coordinating of intentions and the structural matrix of objects and things" (Klein, 1960, p. 90). These cognitive structures, then, are, in a sense, a selective filtering and "correcting" mechanism which stands between the demand for reality-oriented, adaptive solutions from the secondary process side and the demand for unmodulated expression of impulses from the primary process side.

Now individuals vary in their typical use of one or another cognitive control, and a number of these individual tendencies have been described (cf. Gardner, et. al., 1959). These typical individual tendencies are referred to as "cognitive styles," and, following Holt (1957) and Pine and Holt (1960), it would appear that it may be just such a stylistic dimension which will determine an individual's ability or disposition to move back and forth from primary process to secondary process predominance in functioning. In other words, an individual who has a great deal of energy available for attention-cathexis may have such energies organized into a style of functioning which allows for the shifting -- i.e., the distribution and redistribution of cathexes -- from one to another level of psychic functioning with ease. Whereas another individual may have relatively little available energy for attention-cathexes, and his control organization would necessitate, for accommodative reasons, that strict limitations be placed upon the ability to shift among levels of psychic functioning. Thus, Klein (1960), while summarizing some of Holt's findings, writes:

> Holt says that perhaps the dispositions to primary-process forms of thought and the varieties of such reversions will be dictated by the conditions and possibilities afforded by cognitive style.... Possibly, then, cognitive style has an important role either in limiting or providing opportunities for thinking to revert to primary-process modes (p. 112).

Two cognitive styles have been delineated (Klein, 1954) which appear to closely approximate the two kinds of individuals we have mentioned, i.e., the one who is able to shift among psychic levels easily and the one who cannot. These styles have been called "flexible control" and "constricted control." In fact, using subjects in each of these categories, Holt (1957) found that they differed in the amount, type, and manner of control of primary process manifestations on the Rorschach. The flexible control group gave more responses containing evidences of primary process; and when the constricted control group did give such responses, they tended to give them either with signs of disturbance or else flatly and, as it were, unconsciously and naively. In contrast, flexible control subjects' sexual and aggressive content was typically couched in a way more acceptable as social communication (Holt, 1957, as reported in Klein, 1960).

According to this study, it might appear that the cognitive control variable was directly related both to expression and control of primary process. This, if so, would contradict our prior statement that the cognitive control variable -- in our terms, ability to oscillate -- is _independent_ of the abilities to regress and to progress. Just so, Holt (1956) had hypothesized that "it seemed reasonable to assume that flexible control would be correlated with a capacity for controlled and creative use of primary process" (p. 18), which is to say that the cognitive control variable would be related to progression (he makes no mention of regression here). This earlier study (Holt, 1956) was admittedly exploratory in nature, using only thirteen subjects, and Holt stated that "a cross-validation study with blind scoring of a larger sample" (p. 18) was under way. The study reported above (Holt, 1957) would seem, then, to be the results of the cross-validation.

Yet, with this evidence in hand, it does not, according to Holt himself, appear to be a closed issue. For, as we quoted earlier, he goes on to say at a later time that "where tests require flexible and original thinking, and where the control style permits this, thinking can be flexible even apart from the (hypothesized) original relation of control directly to primary process thinking" (Pine and Holt, 1960, underlining ours). We might suppose, then, that new information has caused Holt to reevaluate his earlier statements.

Furthermore, it may be the case that the very system which Holt uses to assess the expression and control of primary process, his Rorschach scoring scheme, already contains within it certain aspects of functioning which overlap with cognitive control dimensions. For example, one would suppose that an individual who has a flexible control organization, and therefore more energy available for selective attention-cathexis, would probably produce a greater _variety_ of responses to different parts of the Rorschach blot, would, in the fluid shifting from level to level, be subject to more formal deviations and, for the same reasons, would display a higher percentage of modifications in the sequences of responses -- all of which tend to heighten the score on expression of primary process according to Holt's system. And, on the control side, since the system can only judge the finished product, we might suspect that the individual who moves easily from one level of psychic functioning to another would have a greater opportunity to "return" to the secondary process level before verbalizing a response than would the individual who tends to remain at the primary process level for a longer time period once he has gotten there. This latter possibility is further reinforced when we recall that the implicit, and sometimes explicit, demands of the task are to produce responses within a reasonable time limit.

Thus, the empirical question of whether this third component, as we have termed it, is actually independent of the other two components when they are measured independently remains, and the present study attempts to shed light on this question.

Thus, as far as our analysis and critique of the extant theory and the operational translations of it have succeeded in explicating the meaning of "regression in the service of the ego," and as far as our attempts to solve some of the problems which have been brought to light by our remarks have been successful, then our reformulation and definition, along with our operational translation, of the concept to be presented will be worthwhile. We therefore conclude the present section of our study with a more formalized definition of "regression in the service of the ego," which definition hopefully takes into consideration the results of our analytical work.

Regression in the service of the ego: a definition. "Regression in the service of the ego" is a complex, adaptive, psychic process which takes place in one individual, and which can be said to have taken place if and only if that individual

(a) allows primary process material or its close derivatives to enter conscious experience, i.e., regresses, and

(b) shifts easily between primary process levels of functioning and secondary process levels of functioning, i.e., oscillates, and

(c) analyzes, synthesizes, elaborates, modifies and transforms primary process material into terms that are communicable to at least one other individual, i.e., progresses.

From this definition it follows that these characteristics constitute the necessary and sufficient conditions for "regression in the service of the ego," and an individual may be said to have the ability to "regress in the service of the ego" if and only if he is capable of fulfilling these conditions, i.e., this ability may be defined by a set of statements about the individual in the form of dispositional terms, to wit: "can regress," "can oscillate," and "can progress." To the extent that an individual has this ability, to that extent is the probability higher, at any given time, that he will "regress in the service of the ego" than will another individual who has less ability or is deficient in at least one of the three aforementioned components, (a), (b), and (c).

Sexual identification

Having thus far presented our view of "regression in the service of the ego," we now turn our attention to another psychoanalytic concept, sexual identification, in an attempt to describe a relationship between the two. In so doing, we shall not presume to establish nor hypothesize any causal link between the two areas, for this is far beyond the scope of any ahistorical study. Our attempt will be to describe certain correlational links which may exist between the components of "regression in the service of the ego" and sexual identification. In order to do so, we must first ask the question: what are the essential dynamic meanings of the components of "regression in the service of the ego"?

Femininity and Masculinity. Recall, first that the definition of the regressive, so-called "inspirational" (Kris, 1952), component of the total process stresses a disposition toward receptivity. Following Kris' initial formulations, Schafer (1960) wrote that "the experience of inspiration itself appears to be fantasied as one of passive, feminine receptiveness ..." (p. 127). The relaxation of the ego's defensive and synthetic functions, which is necessary for regression to occur, does seem to be a move in the direction of passivity. Both Kris (1952) and Bellak (1958) have emphasized the "oral" nature of this phase, the receiving of something which is given, as it were, from the outside, as opposed to an active reaching out for something. Passive receptiveness seems also to aptly characterize this phase of the experienced totality as it is described by artists themselves, as, for example, in a description of the creative process by Nietzche (in Ghiselin, 1952), who wrote: "One hears -- one does not seek; one takes -- one does not ask who gives... I have never had any choice about it" (p. 202).

On the other hand, _activity_ or _mastery_ have long been attributed as characteristics of masculinity. So, for example, Freud (1923) wrote:

> At the level of the pregenital sadistic-anal organization nothing is yet heard of any maleness and femaleness; the dominant antithesis is that between active and passive. The antithesis runs: a male genital organ or a castrated condition. Not until the completion of development at the time of puberty does the polarity of sexuality coincide with _male_ and _female_. In maleness is concentrated subject, activity, and possession of a penis; femaleness carries on the object, and passivity (p. 248f).

It should be stressed, though, that Freud, in setting these two dispositions against one another as antithetical, does so only for theoretical purposes. For, in actuality, they are to be conceived of as polar values on one continuum with admixtures of the two all along (Freud, 1938, p. 613n).

Thus, at one extreme of the continuum we may find the feminine-passive disposition, while at the other end the masculine-active. But, to some extent both of these will be found in each individual. However, this is not to say that one or the other may not predominate. From the Freudian point of view, the basis of sexual dispositions is biological, and it would therefore follow that the "ideal" situation is one in which the feminine-passive disposition predominates in the female and the masculine-active in the male. However, this is obviously not always the case, for, as we shall see, the determinants of masculinity and femininity -- though perhaps biological at base (an issue which may be argued, but which is not important for the present study) -- are not only biological in actuality, or, for that matter, according to psychoanalytic theory.

As an example of a disposition counter to biological sex -- and at the same time, as an example of the relationship between masculinity and mastery, in this case intellectual -- we quote from Deutsch (1944) who, speaking of the "masculinity complex in women," wrote:

> Woman's intellectuality is to a large extent paid for by the loss of valuable feminine qualities: it feeds on the sap of the affective life and

> results in impoverishment of this life either as a whole or in specific emotional qualities. The intellectual woman is not Autonoe, the Wise One, who draws her wisdom from the deep sources of intuition, for intuition is God's gift to the feminine woman; everything relating to cognition and exploration, all the forms and kinds of human cultural aspirations that require a strictly objective approach, are with few exceptions the domain of the masculine intellect, of man's spiritual power, against which woman can rarely compete. All observations point to the fact that the intellectual woman is masculinized... (p. 290f).

Again, in speaking of the masculinized woman author, George Sand, Deutsch reemphasizes this point: "When we uncover the instinctual components behind the sublimations, we find confirmation of our views that her intellect concealed aggressive-masculine components, and her poetic intuition passive-feminine ones" (p. 314).

One may see the distinction between the two dispositions in yet another context. If we look at the psychopathology seemingly connected with the opposite poles of the masculinity-femininity continuum, it is not unusual to find the following relationships: on the feminine side, we see the very passive, yielding, suggestible, highly emotional hysteric; and on the masculine side, we see the over-intellectualized, extremely rational, cold and abstracted obsessive-compulsive.

As Freud (1896) noted: "The importance of the _active_ sexual attitude as a cause of obsessions, and that of the _passive_ attitude in the pathogenesis of hysteria, seems to give the reason of hysteria's close association with the female sex and of the preference of the male for the obsessional neurosis" (p. 153, underlining ours).

Thus, it would seem to follow that, along with the relationship which we have hypothesized between the feminine-passive disposition and the inspirational or regressive component, a relationship may be seen between the active-masculine disposition and the ability to elaborate, to maintain secondary process functioning, i.e., the progressive component of "regression in the service of the ego."

Some experimental studies bearing on the issue. Once again, to frame our statement in a more formal way, we would predict that a direct relationship exists between femininity and the ability to regress, on the one hand, and on the other, between masculinity and the ability to progress. Aside from the aforementioned theoretical reasons for these predictions, many research studies reporting sex differences -- assuming, for the moment, that these do reflect differences in femininity-masculinity -- have produced evidence which bears on our hypotheses. For example, Witkin, et. al. (1954) found, on a battery of perceptual tasks, that women tended to be more "field-dependent or less analytical" than men. Women "show passive acceptance of the field to a greater extent than men.... Men, on the other hand, are more apt to deal with the field in an active, analytical fashion..." (p. 170f). In another study, Gross (1959) successfully replicated Witkin's findings.

On the other hand, a number of studies reported in the literature have shown little or no differences between sexes on a variety of tasks (cf. Anastasi and Foley, 1949; Hovland, 1951). At the same time, in further investigations Witkin has consistently found differences and is presently preparing a report which will summarize these.[3]

We must, however, bear in mind that being a female does not necessarily mean possessing a predominance of femininity in the sense in which psychoanalytic theory uses the term, nor does being a male necessitate a predominately masculine disposition. If, for example, one tested a group of "feminine" males and a group of "masculine" females, one would expect -- if these dispositions do, in fact, lead to differences in behavior of the kind mentioned -- that the males in such a study would exhibit passive, receptive behavior while the females would be active and analytical!

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[3] Personal communication to the author from Dr. H. A. Witkin.

So, if the mere fact of biological sex does not appear to be a usable criterion, what may be more fruitfully substituted?

The concept of sexual identification. The meaning of the term "identification" has been the subject of much controversy and has, therefore, received a great deal of attention in the theoretical literature (cf. Knight, 1940; Stoke, 1950; Sanford, 1955). Since, however, the present study is using the term in the sense given it in psychoanalytic theory, we shall take our understanding of the concept from this source.

According to psychoanalytic theory, in the course of normal development the Oedipus complex succumbs, at the climax of the phallic phase, to the threat of castration. The child's ego then turns away from the libidinal cathexes of the parent-objects, and, these object-cathexes having been given up, they are replaced "...by identification. The authority of the father or the parents is introjected into the ego and there forms the kernel of the super-ego" (Freud, 1924, p. 273). In summary:

> The broad general outcome of the sexual
> phase governed by the Oedipus complex

> may, therefore, be taken to be the forming of a precipitate in the ego, consisting of these two identifications [with the mother and father] in some way combined together. This modification of the ego retains its special position; it stands in contrast to the other constituents of the ego in the form of the ego-ideal or super-ego (Freud, 1935, p.43f).

Therefore, we may say that identification, for Freud, was the internalizing of attributes of the parents and the formation, therefrom, of the ego-ideal. The ego-ideal, then, is made up of attributes from both the mother and the father, and we may speak of the existence of both a mother-identification and a father-identification. Further, "the relative intensity of the two identifications in any one individual will reflect the preponderance in him of one or the other of the two sexual dispositions" (Freud, 1935, p. 43). Thus, biological factors aside, it is the strength of identification with one or the other of the parents which is the key determinant of masculinity and femininity. This holds for a child of either sex, but in the normal developmental process it is expected that the predominant identification will be with the same-sex parent.

To summarize the foregoing, we may once again quote from Freud's writings on the subject:

> Along with the dissolution of the Oedipus complex the object-cathexis of the mother must be given up. Its place may be filled by one of two things: either an identification with the mother or an intensified identification with the father. We are accustomed to regard the latter as the more normal; it permits the affectionate relation to the mother to be in a measure retained. In this way the passing of the Oedipus complex would consolidate the masculinity in the boy's character. In a precisely analagous way, the outcome of the Oedipus attitude in the little girl may be an intensification of the identification with her mother (or such an identification may thus be set up for the first time) -- a result which will stamp the child's character in the feminine mold (Freud, 1935, p. 41).

The oscillation component: an omission. The reader may have already noted that the oscillation component of "regression in the service of the ego" has been omitted from our discussion of sexual identification thus far. The reason for the omission is, nevertheless, eminently simple and straightforward. That is, there seems to be no reason to suppose that any relationship exists between this component and sexual identification. However, this is not to say that none exists. We leave this question open, then, with the hope that our inquiry may adduce some evidence which will allow us to make a more positive statement about the relationship, or lack of it, between the two areas.

Necessary conditions of measurement and hypotheses

In our presentation of "regression in the service of the ego" as a complex, total process which may be analyzed into three components, we took some pains to emphasize the necessity of presenting operational translations of each component which would be independent of the other two. We then defined the three components in a way that would allow of such independence while nevertheless maintaining the essential meanings of each. Thus, if the distinctions among the three components are as we proposed, it should follow that no consistent relationship would exist between the measured performance on any two, or among all three, of these components. We are assuming here that our measuring instruments are valid ones. It should be mentioned, though, that a finding in line with our assumptions of component independence will lend, on the one hand, confirming evidence to the theoretical formulations we have presented, and, on the other hand, construct validity to our measuring instruments. Contrariwise, findings opposed to our expectations would cast doubt both on the validity of our instruments and on the theoretical distinctions we have made. Thus, in the chapter presenting the results of this investigation, we shall first focus on the findings regarding the measuring instruments of "regression in the service of the ego."

Following that, assuming that we have reason to believe that the measuring instruments are sound and that we have been able to empirically distinguish independent components of "regression in the service of the ego," we shall then proceed to test our hypotheses concerning sexual identification. These may now be formally stated:

1. A direct relationship exists between the component of regression in "regression in the service of the ego" and a sexual identification which is predominantly feminine;

2. A direct relationship exists between the component of progression in "regression in the service of the ego" and a sexual identification which is predominantly masculine.

Each subject was given four separate tasks: (a) a specially designed group Rorschach as a measure of ability to regress; (b) the Stroop color-word interference task as a measure of ability to oscillate; (c) a specially designed sentence-construction task as a measure of ability to progress; and (d) the Chang and Block adjective check-list as a measure of sexual identification. These instruments will be described in detail in the following chapter. It was then possible to investigate our theoretical statements regarding the independence of the three components of "regression in the service of the ego" by intercorrelating the measures of these three components. It was also possible to test our hypotheses concerning the relationships between the regressive component and a feminine sexual identification and between the progressive component and a masculine sexual identification. Finally, the data allowed of a number of additional analyses -- particularly those relating to the variable of cognitive control, a measure of which could be obtained from the Stroop color-word interference task -- which, it was hoped, would lead to further investigations in the area.

CHAPTER 2

METHOD

Measuring instruments and their rationale

Following is a description of each of the measuring instruments used in the present study. Where the instrument is one that has been used in prior investigations, a description of the results obtained with it will be given. On the other hand, where the instrument was designed especially for this study, the rationale behind its construction will be given.

The measurement of regression. The component of regression is defined as the ability to allow primary process material or its close derivatives to enter conscious experience. In order to measure this, a task was designed in which the individual is presented with the opportunity of either being receptive to or rejecting of a variety of stimuli. In format, the task is essentially a group Rorschach test.

More specifically, the instrument was constructed as follows.[1] For each of the ten Rorschach cards, twenty alternative responses were presented, making for a total of 200 responses in all. Of the twenty responses for each card, ten referred to the whole blot (scored W in conventional scoring schemes) and ten referred to a usual large detail (scored D in conventional scoring schemes). Within each set of ten responses, six contained manifestations of primary process and four were "neutral" responses. The classification of responses in this way followed the criteria outlined by Holt (1956, 1959) and Holt and Havel (1960). The judgment of each response was made by two individuals well acquainted with Holt's system,[2] and any response which met with the least doubt from either judge was omitted.

Furthermore, within each set of six primary process type responses, representation was given to each of six different categories which correspond to the various content and/or formal scoring categories of primary process manifestations as outlined by Holt (1959).

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[1] The author would like to express his gratitude to D. Pryor who shared equally in the efforts to construct this instrument.

[2] One of these judges had had experience in scoring over 50 Rorschach protocols according to Holt's system.

Thus, for the six primary process responses each of the following categories was represented: (1) oral, (2) anal, (3) generally sexual, (4) aggressive, (5) formal -- direct expression of affect, and (6) formal -- illogical fusion of images, condensation, non-reality oriented. Each one of these is represented by one response per each set of six primary process responses. As a demonstrative example, the following responses -- each one labelled as to its category -- to the whole blot (W) of Card I of the Rorschach are presented. For clarity's sake, they are not presented in the random order in which they actually appeared on the instrument, but are, instead, grouped according to primary process and "neutral" responses.

Primary process responses:
1. Grinning mask with a large mouth (oral).
2. Bird with ragged tail end -- tail feathers missing (anal).
3. Two whirling dancers, either men or women (sexual).
4. Face of a wolf snarling (aggressive).
5. Gives a scary feeling (formal -- affect).
6. Woman with large wings (formal -- illogical fusion).

Neutral responses:
1. Bird flying in the air.
2. Airplane coming in for a landing.
3. Animal head of some kind.
4. Fancy kite in the sky.

Responses in these same categories are given for the large detail (D) of Card I also, and this procedure is repeated for the rest of the blots. Of the total number of responses to all ten cards, 120 are of the primary process type and 80 are "neutrals." For the total listing of responses, see Appendix A.

Each of the 200 responses would receive, according to Holt's scoring system, an evaluation of essentially "good form" (excepting, of course, the primary process alternative which is the direct expression of affect -- since no part of the blot is actually mentioned in such a response, it would not be scored for form-level). That is, Holt (1959) lists eight levels at which any response may be scored. The first three levels are denoted as "plus" levels and they range from sharp, convincing forms to forms that are "reasonably plausible, but... takes a little stretching to see" (Holt, 1959, p. 59). Each of the responses listed in the instrument used in this study would receive a form-level score within the first three "plus" levels.

The Rorschach blots were projected onto a screen in front of the subjects. Each subject was given a closed booklet with a face sheet. The subjects were asked to fill in the face sheet and then wait for further instructions. They were then told that a number of ink blots would be projected on the screen one at a time, each one remaining there for a few minutes (the actual presentation duration for each blot was four minutes). At a signal from the experimenter, they were to open the booklet to the first page on which were listed a number of possible alternatives, some of which pertained to the whole blot, others to one part of the blot. On each page of the booklet an outline drawing of the large detail -- similar to those given in most Rorschach location charts -- accompanied the list of responses presented for the detail. The subjects were assured that there were no "correct" or "best" alternatives, that it was strictly a matter of personal preference. They were told to look at the projected blot and then to look at the presented alternatives, and to check only those which seemed to them to resemble the blot. Instruction was given to try and allow the choices to "present themselves" as spontaneously as possible, not to think too hard about them, but to follow one's initial, subjective impression.

At the end of each successive four minute presentation of a blot, the subjects were instructed to turn the page in their booklets, and the next blot was presented. The order of presentation was the usual one, Card I through Card X.

Only one limitation was placed on the student's responses. They were told that they might choose no more than six alternatives for the whole blot and no more than six for the part of the blot, and that this limitation held for each of the blots. It was also stressed that they might, however, choose as few alternatives, including none, as they wished. At this point, a statement was made to the effect that for some people none of the alternatives seemed to resemble the whole or part of a blot. This, they were assured, was quite all right -- just as it was equally all right to choose six responses, or any number in between, for any whole or part. The reasons for this limitation were as follows. First, a limit of six out of each set of ten (twelve out of twenty for each blot) would force the necessary omission of some of the alternatives; this would seem to keep the effects of possible response sets, such as "acquiescence," to a minimum, although it would not totally eliminate these effects. It would, however, restrict the range of scores so that the presence of response set could be detected. This procedure would not, of course, control for an acquiescent response set in which the subject chose the first six alternatives listed each time. Needless to say, however, such a pattern of responding would be quite unusual and would be expected in a very small percentage of subjects, if at all. Second, a limit of six responses allows the subject with a great deal of regressive ability to choose all of the primary process items in each set. Finally, despite the experimenter's statements to the contrary, it might be expected that many subjects would feel some, if not considerable, subtle pressures to "produce" enough responses to meet whatever internal demands may have existed to fulfill the "requirements" of the task. Such demands, it would seem, could be met with a choice of four presented alternatives while still allowing the subject the option of picking only "neutral" responses.

The basic score on this instrument was the total number of primary process responses chosen by the subject over the ten Rorschach blots. At the same time, it was also possible to score each blot separately -- as a general measure of consistency for the subject and the instrument -- and to score for total productivity or total number of alternatives chosen.

The measurement of oscillation. Our definition of the oscillation component of "regression in the service of the ego" was framed in terms of the ability to "shift easily between primary process levels of functioning and secondary process levels of functioning," and the meaning of the latter was explicated with respect to the concept of energy deployment, and in particular, attention-cathexis. We also went on to show how the variable of "cognitive control" (Klein), which essentially describes the individual style of energy deployment, constituted an appropriate mediating concept through which an operational translation of the oscillation component could be constructed. We then mentioned two such cognitive control principles, "flexible" control and "constricted" control, the former characterizing the ease of shifting among levels of psychic functioning which we call oscillation ability.

The accommodative principles of "flexible" and "constricted" control have been used to successfully predict the effects of irrelevant drive stimuli on size estimation, the direction and drive-domination of free associations, accuracy of tachistoscopic recognition, and incidental recognition of drive-related and "neutral" words (Klein, 1954). These accommodative principles have also been able to predict the ability to cope with perceived incongruity, the experience of "unreality" (Klein, 1960), and, as previously mentioned, differences in expression and control of primary process on the Rorschach (Holt, 1957).

The task used to distinguish "flexible" and "constricted" control is an adaptation of a color-word interference test first used by Stroop (1935). In this task, the subject is presented with a card on which are printed the names of five different colors (red, blue, yellow, green, and brown). However, these color-words are presented in incongruous colors -- so, for example, the word "r-e-d" might be printed in a blue color, the word "b-l-u-e" might be printed in a yellow, and so on. The subject's task is to read aloud the color in which the word is printed -- and therefore, to ignore, as much as possible, the name of the color. For instance, if the word "r-e-d" appeared in a blue color, the subject was to say "blue." The words were arranged in ten lines of ten words each, the mixing of names and colors appearing in a fixed randomized fashion, and in no case was the name and the color it was printed in the same. Preceding the administration of this task, a card of the same size consisting of the color names printed in black and again arranged in ten lines of ten words each, was presented to the subject. On the one hand, this would provide for an estimate of reading speed, while on the other, it would serve to reinforce the tendency, undoubtedly present already, to read the word.

Subjects were given this task in individual sessions. First the card with words in black was presented. Then, the color-word interference task was administered four times in succession, with only brief pauses between each. The scores for these tasks were: time to complete the first, straight reading task and mean total time over the four trials of the color-word task. Time was measured in seconds.

The measurement of progression. The definition of the progression component of "regression in the service of the ego" was given as the ability to "analyze, synthesize, elaborate, modify, and translate into terms communicable to at least one other individual" material which is a manifestation of primary process. In our attempts to define this as an independent component of the total process and, more importantly, to describe an operational translation for it which is independently measured, we found it necessary to depart from the extant conception of progression. Instead of requiring that an individual demonstrate progression with material that he, himself, had brought forth previously, we argued that the essential requirements of the definition might be met by the individual's demonstrating progression with primary process material presented to him.

This, of course, assumes that primary process manifestations, or derivatives therefrom, are similar among individuals, at least with respect to their meanings, though not their specific content. Similar assumptions concerning the "universality" of the various kinds of unconscious content are made by most projective tests, e.g., the Blacky pictures, the Free-association test, and, of course, the Rorschach and Thematic Apperception Test (TAT), to at least some extent. It is common in most projective testing to assume that it is possible to specify before hand whether the subject will have to deal with material which is relatively close to primary process (as on the Blacky pictures) or with material which is relatively "neutral" (as on most intelligence tests).

On this assumption, then, the requirements of the definition of progression were met by presenting the individual with primary process material and obtaining a measurement of his ability to maintain secondary process functioning in the face of it. At the same time, one may also present, in the same manner, material which is essentially "neutral." Doing so would therefore allow one to answer the question raised earlier whether the ability to progress in the manner described in our definition was only one instance of a more general ability to progress, irrespective of the content used as the raw material. If this were to be the case, then one would expect the abilities to progress with primary process material and with "neutral" material to be highly correlated.

To this end, therefore, the following task was designed. Subjects were presented with a series of sets of words, each set consisting of four words. Some of the sets contained words which were judged to associate highly with primary process contents, while other sets contained words which were judged to be "neutral," or having little association with primary process contents.[3] For example, a set of words judged to be primary process associated was: NIPPLE, ODOR, SUCK, WILD. A set judged to be essentially "neutral" was: DOG, PICTURE, SIT, NICE. Each set of four words consisted of two nouns, one verb, and one qualifier (adjective or adverb). Fifteen such sets were used, ten of which were primary process associated, and five of which were "neutral" (cf. Appendix B for the list of words used). The subjects' task was to construct meaningful, grammatically sound, communicative sentences, each of which contained all four words of a given set. The subjects were to construct as many sentences as they could within a time-limit, three minutes for each of the sets of words. It was stressed that each sentence for any one set was required to have every one of the four words somewhere in the body of that sentence. Working within a set of words, it was permissible to change the form of any one of the words (e.g., to make a singular noun plural, or to change the present tense of a predicate to the past tense) from sentence to sentence. But, subjects were instructed that an important requirement of the task was to make each sentence in a given group for one set _different_ from every other sentence. Thus, a mere change in the tense of the verb, conversion to plurals, adding of one qualifier, and so forth, did _not_ make for a different sentence.

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[3] Two other judges, both familiar with psychoanalytic theory, beside the author sorted sets into "primary process" and "neutral" categories. Agreement was unanimous on all sets used in the study.

For the administration of the task, a booklet was made up consisting of fifteen pages plus a face sheet. At the top of each blank page one set of four words was printed. The set on the first page was a "neutral" set and was used as a "warm-up" for the subjects. Following that were two pages, each with a "neutral" set printed at the top, then five pages of primary process associated sets, then two more pages of "neutral" sets, and finally five pages of primary process sets. These fourteen sets of words (ten primary process and four "neutrals," omitting the "warm-up" set) were used in the scoring of the task.

Scoring was based on a point system, with each sentence written given four points if all four words were included, three points if only three of the four words were included, and so forth. However, only those sentences which were judged to be meaningful, grammatically correct or sound, and communicative could receive points.

In order to eliminate subjectivity in scoring, two scorers collaborated on the scoring of all sentences.[4] Overall scores used were: total points on the first two "neutral" sets, total points on the second two "neutral" sets, total points for all "neutrals" combined, total points for the first five primary process sets, total points for the second five primary process sets, total points for all primary process sets combined, and finally, total points for all "neutral" plus primary process sets combined.

The measure of sexual identification. In our discussion of sexual identification we were careful to note that, according to Freud, identification is to be understood as the embodiment of the attributes of the parent(s) in the form of the child's ego ideal. This is to be distinguished from the individual's actually being or perceiving himself to be like the parent(s). More accurately, it is that the individual's perceived ideal is like the perceived parent(s). To draw this distinction more clearly, it might very well be that no similarity exists between an individual's actual self and, say, his father; but, at the same time, there exists a one-to-one relationship between the individual's ideal self and his father. Then, according to Freud's conceptualization, one would conclude that this individual strongly identifies with his father.

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[4] The author wishes to express his appreciation to A. Zavala for his help.

For research purposes a variety of operational translations of identification have been employed. The predominant ones used, however, ignore the distinction aforementioned. So, for example, a number of investigators have used similarity between subjects' and parents' responses to the same inventory as their measure (Sopchak, 1952; Lazowick, 1955; Payne and Mussen, 1956); again, other studies have used as their measure the perceived similarity between the subject's actual self and the parents on an inventory which the subject fills out (Cava and Raush, 1952; Beier and Ratzeburg, 1953; Bieri, 1960). In another study comparing direct and indirect measures of identification -- the direct measures being those using inventories, the indirect those using projective techniques -- it was found that direct measures of perceived similarity between actual self and parents were the most consistent measure of identification (Bieri, _et_. _al_., 1959), but, as we have pointed out, this still does not constitute an appropriate operational translation for the psychoanalytic view of identification.

Chang and Block (1960) emphasize this point and propose an operational translation more consistent with Freud's conception. They write:

> In this study, then, a measure of the extent of identification with one's mother or father following directly from this conceptual definition was derived by finding the degree of correspondence between the attributes of one's ideal self, i.e., the person one would like to be, and the attributes of one's mother or father, as described by the identifier. The higher the degree of correspondence between one's ego ideal and one's parent, the greater the identification with that parent (p. 307).

These authors used this measure to investigate differences between the predominant identifications in male homosexuals as compared to "normal" individuals. It was predicted, following psychoanalytic theory, that the homosexuals would be more strongly identified with the mother and, at the same time, more strongly _dis_identified with the father than would the control group. These hypotheses were confirmed, lending confirmation not only to psychoanalytic theory regarding the nature of homosexuality, but also -- and more important for our present purposes -- providing construct validity for their instrument.

In another study by different investigators using a number of measures of identification, not including the one just mentioned, the authors concluded that the best single measure of sex difference in identification was the subjects' responses to the Semantic Differential technique (Bieri and Lobeck, 1959); and, as was previously mentioned, Bieri, et. al., (1959) found that such a measure was most consistent. Block (1958) used the Semantic Differential technique jointly with the measure described in Chang and Block (1960) and found a correlation between the two instruments of .94 (after correction for attenuation).

Therefore, with the evidence of its validity -- both construct and correlational -- apparently strong, and since its intrinsic or face validity for the conceptualization of identification in psychoanalytic theory is obviously sounder than other proposed measures, it was decided to use the Chang and Block measure in the present study.

The instrument is an adjective check-list consisting of 79 adjectives arranged in alphabetical order. Four pages of these adjectives are bound together in a booklet, with different labels at the top of each page. The first page is titled: IDEAL SELF, the second: YOUR MOTHER, the third: YOUR FATHER, and the last: YOUR SELF AS YOU ACTUALLY ARE. In the present study, only the first three pages, which constitute the measure of sexual identification were used; the fourth page, the rating of actual self, is not germane to our interests in this investigation. The subject's task is to fill out all four pages, in each choosing 30 adjectives which do describe the person referred to by the title at the top, and 30 adjectives which do not describe that person. Thus, of the 79 adjectives for each page, 60 must be scored either "like" or "unlike," and 19 are left blank. The rating of identification is made by counting the number of correspondences between the ideal self list and the mother, and between ideal self and the father. Correspondence is defined as marking a given adjective as "like," "unlike," or leaving it blank on both the ideal self descriptions and parent descriptions. A score of one is assigned to each such correspondence and summing these scores for ideal self-mother and ideal self-father provides the measures of identification with each parent. A derived score was then computed by subtracting the mother-identification scores from the father-identification scores (and adding a constant to eliminate minus sums). This derived score would measure predominant identification, but it should be noted that the score will be high if the father-identification score was high and/or the mother-identification was low, and the derived score will be low if the father-identification score was low and/or the mother identification was high. Derived scores in the middle of the distribution are obtained if the two identification measures are roughly the same.[5]

From this instrument, then, one may obtain both the absolute scores of identification with each parent and a score of identification predominance. In the present study, all three scores obtained were used in the analysis of results.

Subjects

The subjects in this investigation were 81 undergraduate students enrolled in two classes of Introductory Psychology at Michigan State University. Of these, 47 were males, 34 were females. They were all between the ages of 17 and 30, except for one male who was 54 years old. None of the subjects was familiar with any of the testing procedures beforehand.

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[5] The legitimacy of this derived score will be discussed in the Results section.

Of these subjects, all had their original parents, except for the following: four subjects' fathers were deceased (in only one case was the mother remarried), one subject's mother was deceased (father remarried), two subjects' parents were separated but living, and two subjects' parents were divorced (in one case the father had subsequently died). In all cases, the change from having both original parents came after the subject had been past the age usually deemed significant for the solidification of identification according to psychoanalytic theory, except for one female whose father died before she was aged five -- however, her mother remarried (how soon afterwards, though, is not known). In any event, from the small percentage of departures from the normal family unit, it would seem highly doubtful that any effect on the data obtained would be significant.

Subjects were asked to participate in the experiment as part of the usual course requirement at Michigan State University. However, no penalty was attached to a failure to participate. All subjects completed the sexual identification adjective check-list; all subjects appeared for the oscillation task, but two were unable to perform on it (one because of color-blindness, the other because of "emotional difficulties" present at the same time); one subject failed to appear for the regression task; and four subjects failed to appear for the progression tasks.

Measures of intelligence as obtained from the College Qualification Test (CQT) were available for 65 of the 81 subjects. The scores will be presented in the following section.

CHAPTER 3

RESULTS

In this chapter we shall present the findings which have arisen from our investigation. It may be recalled here that four different tasks were given to the subjects. Three of these tasks were designed to be measures of the three hypothesized components of "regression in the service of the ego," while the fourth task was a measure of sexual identification. We shall first turn our attention to the measures of "regression in the service of the ego." Following that, we shall present the results of the tests of hypotheses regarding the relationships between sexual identification and "regression in the service of the ego" -- or, more accurately, the two components of progression and regression involved in the hypotheses. Finally, we shall present some additional data about which no specific hypotheses were formulated beforehand.

Measures of "regression in the service of the ego": preliminary analyses

In this section we shall present the findings which pertain to each of the three component measures -- of regression, of progression, and of oscillation -- and to the interrelationships among them.

Measurement of regression. For the Regression task, the forced-choice Rorschach test, two overall measures were obtained: (a) sum of primary process alternatives chosen for all ten blots, and (b) sum of all alternatives, primary process plus neutral, chosen for all ten blots (total R sum). It was also possible, of course, to examine the sum of primary process alternatives chosen for each of the ten blots separately. In all, then, twelve measures were generated from the data of this task.

In order to ascertain whether performances on this task exhibited internal consistency, so that one might then speak of each separate blot as a measurement of the same variable, a matrix of intercorrelations -- each blot with every other blot -- was obtained. At the same time, to assess the contribution of each of these "sub-scores" to the total sum of primary process alternatives chosen, each of the "sub-scores" was correlated with the overall sum of primary process. Finally, the sum of all chosen alternatives, primary process plus neutral, was correlated with each of the "sub-scores" and with the sum of primary process alternatives. In each case, the correlation was computed from raw scores and was of the product-moment type. Table 1 presents the matrix of intercorrelations, with various levels of significance denoted by letter superscripts.

Turning first to the correlations among the scores for each blot, it is apparent that a high degree of consistency may be attributed to them. That is, the scores for almost every blot are significantly correlated in a positive direction with those of the other blots. Of the 45 correlations obtained among these scores, only six fail to reach the .10 level of significance (two-tailed), and of the remaining 39 correlations, all but five are beyond the .05 level of significance. Such findings could hardly have arisen by chance alone. The subjects would appear, then, to be quite consistent in their willingness to choose or not to choose primary process alternatives from blot to blot. Further, the correlations between scores for each blot and the total sum of primary process alternatives are all highly significant. Thus it would seem that each of the blots contributes significantly to the one overall primary process score. The split-half reliability coefficient

Table 1

Intercorrelations among parts of Regression Task for all subjects (N = 81)

	Card No. I	II	III	IV	V	VI	VII	VIII	IX	X	pp sum	R sum
Card I	--	26[b]	19[d]	13	29[a]	12	-03	18[d]	27[b]	15	41[a]	38[a]
II		--	32[a]	31[a]	33[a]	25[c]	23[c]	37[a]	16	26[b]	56[a]	54[a]
III			--	44[a]	38[a]	14	20[d]	26[b]	23[c]	25[c]	56[a]	54[a]
IV				--	38[a]	36[a]	24[c]	25[c]	21[d]	25[c]	61[a]	54[a]
V					--	46[a]	-24[c]	40[a]	19[d]	45[a]	66[a]	63[a]
VI						--	32[a]	46[a]	31[a]	63[a]	67[a]	64[a]
VII							--	30[a]	34[a]	39[a]	54[a]	52[a]
VIII								--	31[a]	54[a]	69[a]	67[a]
IX									--	48[a]	57[a]	55[a]
X										--	73[a]	67[a]
pri-process sum											--	94[a]
total R sum												--

[a] Significant beyond .01 level.
[b] Significant beyond .02 level.
[c] Significant beyond .05 level.
[d] Significant beyond .10 level.

Note: Correlations are given to two places without decimal point reported; for example, read 26 as .26.

for the total task, computed by the Spearman-Brown prophesy formula from the correlation between the five odd numbered blots and the five even numbered blots, was .77 (N = 77).

However, turning our attention to the results pertaining to the total sum of all chosen alternatives, primary process plus neutral, we see that it parallels the results obtained for the sum of primary process alternatives alone. Each of the correlations with the individual blots is almost exactly the same for these two measures, and we may note the extremely high positive correlation of .94 between the two total scores. Thus, little if any distinction may be drawn between one's score for sum of primary process and one's score for total chosen alternatives (be they primary process or neutral). To further underscore this finding and to add more explicit meaning to it, we may note -- as presented in Table 2 -- that the mean number of total alternatives chosen over the ten blots was 60.77, while the mean number of primary process alternatives chosen was 38.11. Thus, of the total number of alternatives chosen, 64% were primary process. Since, in each set of ten response alternatives presented for the whole (W) and for a part (D) of every blot, six were primary process alternatives, one would expect that, by the action of pure chance alone, 60% of the total number of alternatives chosen would be primary process ones. Our results reflect these expected proportions almost perfectly, and a test of the difference between the observed and expected proportions reveals no significant difference.

Table 2

Number of primary process and total alternatives chosen over ten Rorschach blots (N = 77)

	Mean[a]	% Observed	% Expected
Primary process	38.11	64	60
Neutrals	22.78	36	40
Total alterns	60.77	100	100

[a] The two means, for primary process and for neutrals, do not sum to the overall mean exactly due to rounding errors.

It would appear, therefore, that in this task it is not how many primary process alternatives chosen which is being measured, but how many alternatives of any kind. The more alternatives one chooses, the more primary process alternatives one chooses, but also the more neutral alternatives one chooses. And, the proportion of one to the other remains in a fairly constant ratio which could have been predicted on a chance basis alone.

Although this finding raises many interesting questions regarding both the nature of the task used and the possible relationship between willingness to choose primary process alternatives and neutral alternatives in general, it should be stressed here that our definition of the regressive component concerned itself only with the willingness to allow primary process material, or its derivatives, to enter into conscious experience. We have not proposed that such a willingness, when it exists, should obviate the acceptance of neutral material into conscious experience also. Thus, even though it appears that the task measures choice of alternatives, both primary process and neutral, one may still, it would seem, defensibly utilize the score of primary process alternatives chosen as a means of quantitatively ordering these subjects. For, with only the present data at hand, one cannot firmly decide whether (a) the task measures only choice of alternatives irrespective of their apparent dynamic or motivational sources, or (b) whether, in actuality, willingness to allow primary process material and willingness to allow neutral material into conscious experience are highly correlated functions. Further discussion of these issues will be presented in the next chapter. For the present, however, we may conclude that the Regression task, while it may be characterized as a reliable one which appears to tap a consistent cognitive function in our subjects, remains questionable as regards its validity in tapping only the function we have defined as the regressive component.

Measurement of progression. The Progression task consisted of 14 sets[1] of stimulus words (four words in each set) which were presented to the subjects one set at a time. It was the subjects' task to construct meaningful sentences for each set. Some of these word sets were characterized as Neutrals, and the remaining sets were characterized as Primary process. In order of presentation, the sets were grouped in the following manner: first, two Neutral sets (designated as Neutrals 2, 3); second, five Primary process sets (designated as Primary process 1-5); third, two Neutral sets (designated as Neutrals 4,5); and finally, five Primary process sets (designated as Primary process 6-10). The scores obtained from these trials were treated in the same grouped order -- thus, scores were received for the two Neutral groups, Neutrals 2,3 and Neutrals 4,5, and for the two Primary process groups, Primary process 1-5 and Primary process 6-10. Hence four separate scores were assigned to each subject on this task. In addition, three combined scores were also assigned: (a) sum of all Neutrals, i.e., Neutrals 2,3 plus Neutrals 4,5; (b) sum of all Primary process, i.e., Primary process 1-5 plus Primary process 6-10; (c) sum of all sentences, Neutral plus Primary process. Through the grouping of the sets of words into the Neutral and Primary process categories, it was possible to explore, on the one hand, the nature of the task itself and, on the other, the relationship between one's functioning with each of the types of material.

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[1] A fifteenth set, consisting of four neutral words, was used as a "warm-up" at the beginning, but was not included in the scoring of this task.

Product-moment correlations were computed between each pair of "sub-scores" (e.g., Neutrals 2,3 and Neutrals 4,5; Neutrals 2,3 and Primary process 1-5; etc.), between each pair of combined scores (e.g., sum of Primary process and sum of Neutrals, etc.), and between the "sub-scores" and combined scores. The matrix of intercorrelations is presented in Table 3.

From the results presented, it can be seen that all of the scores correlate positively to a high-

Table 3

Intercorrelations among parts of Progression Task for all subjects (N = 81)

	Neutral sent. 2,3	 4,5	 sum	Pri-pro sent. 1-5	 6-10	 sum	Tot Sum
Neutral sentences							
sum 2 & 3	--	65	91	69	64	69	78
sum 4 & 5		--	91	69	79	78	85
total sum 2-5			--	76	79	81	90
Pri-pro sentences							
sum 1 - 5				--	82	95	91
sum 6 - 10					--	96	91
total sum 1-10						--	95
Neutral plus Pri-pro							
total sum							--

Note: All correlations are significant beyond .01 level. They are given to two places without decimal point reported; for example, read 65 as .65.

ly significant degree. It is apparent that each of the various partial scores appears to be tapping similar functions, and that each of these partial scores contributes highly to the overall combined scores. Further, the highly significant correlations point to the conclusion that subjects perform consistently throughout the task on the different parts of it. Split-half reliability for the entire task was .90, which was computed by correlating the scores of the first seven trials (including Neutrals 2,3 and Primary process 1-5) with those of the last seven trials (including Neutrals 4,5 and Primary process 6-10) and then applying the Spearman-Brown prophesy formula. Again, using only scores for Primary process sets, the correlation of .82 between Primary process 1-5 and Primary process 6-10 produced a split-half reliability coefficient of .90 also, as computed from the Spearman-Brown formula. Thus, it would appear that a high degree of internal consistency may be attributed to this task.

However, it should be emphasized that, just as was seen with respect to the Regression task, the distinction between neutral and primary process material in terms of the functioning tapped by this task is not present. The correlation of total sum of Primary process with total sum of Neutrals is extremely high (.81). It may be recalled that the meaning of such a finding was earlier speculated upon in our discussion of the general ability to maintain secondary process functioning as an interpretation of the meaning of the progressive component of "regression in the service of the ego," as opposed to the more typical interpretation of progression as the ability to submit primary process material to secondary process functioning. Again, however, we shall delay further discussion of this for a later chapter. We are, nevertheless, faced once more with the difficulty of deciding whether (a) the task used taps an area of functioning not specifically affected by dynamic or motivational variables, or (b) functioning in terms of the secondary process with neutral material and secondary process functioning with primary process material are, in actuality, highly correlated. To this extent, then, the validity of the task remains questionable.

Measurement of oscillation. The third measure taken on all subjects, that of the Oscillation component, was the score on the color-word interference or Stroop test. This score was the mean time (in seconds) taken to complete four repeated trials of the test. The test was repeated four times with each subject in order to obtain a stable measure of the performance. A reliability coefficient was computed for this task by applying the Spearman-Brown prophesy formula to the correlation between the scores for the first two trials and the scores for the latter two trials. The coefficient was .93, which would seem to indicate that the task is tapping a quite stable performance in our subjects. It should be recalled that a pre-test was also given to each subject, wherein the subject was asked to read the names of colors, printed in black, from a card. The correlation between this pre-test and the color-word interference test was .33, significant beyond the .01 level.

Interrelations among the measures. Having presented the results obtained with each of the three measures separately, we may now turn our attention to the relationships among them. Our theoretical model has led us to expect that no significant relationships, either positive or negative in direction, should exist among them. In order to investigate this, product-moment correlations were computed among the scores on the three tasks. To obtain as full and meaningful a picture of the relationships among them as possible, correlations were computed not only between the overall scores obtained on the tasks, but also between the "sub-scores." Table 4 presents the matrix of intercorrelations.

Focusing first on the relationships among the Regression task scores and the Progression task scores,

Table 4

Correlations between Regression Task scores and Progression Task scores and correlations of each with Oscillation Task scores for all subjects (N=81)

	Progression tasks:	Neutral sent.			Pri-pro sent.			Tot	Oscill.
		2,3	4,5	sum	1-5	6-10	sum	sum	score
Regression tasks	Card I	-05	-15	-11	-04	-08	-07	-10	08
	II	-03	12	08	23[c]	09	16	13	-08
	III	-02	-04	-03	05	-09	-03	-04	-01
	IV	08	-12	-03	02	-07	-03	-04	02
	V	07	09	09	24[c]	15	20[d]	14	-15
	VI	23[c]	16	21[d]	24[c]	20[d]	23[c]	24[c]	-26[b]
	VII	34[a]	27[b]	34[a]	30[a]	17	24[c]	27[b]	-20[d]
	VIII	-01	05	02	04	-02	01	02	-10
	IX	14	13	15	14	09	12	14	-13
	X	15	14	16	16	03	09	14	-20[d]
pri-process sum		16	10	14	20[d]	07	13	13	-19[d]
total R sum		21[d]	14	19[d]	22[c]	10	17	17	-15
Oscill. score		-24[c]	-35[a]	-33[a]	-20[d]	-30[a]	-27[b]	-30[a]	---

[a] Significant beyond .01 level.
[b] Significant beyond .02 level.
[c] Significant beyond .05 level.
[d] Significant beyond .10 level.

Note: Correlations are given to two places without decimal point reported; for example, read -05 as -.05.

one may note that very little evidence of any relationship exists. The correlations among the overall or summed scores for both tasks are negligible. Only one -- that between total sum of alternatives chosen (total R sum) on the Regression task and sum of Neutral sentences on the Progression task -- even approaches significance, but is beyond the .10 level (two-tailed). Since, in this aspect of our investigation, our prediction is that no relationship exists, this level of significance is not great enough for conventional purposes. It would thus appear that, with respect to the overall scores on these tasks, our expectation of no relationship is confirmed.

One may, nevertheless, discern within the matrix of intercorrelations of the partial scores of the two tasks certain significant and consistent correlations which bear attention. Though most of these "sub-score" intercorrelations follow the pattern of the overall scores -- i.e., a lack of relationship -- it is interesting to observe that the correlations of both Card VI and Card VII of the Regression task (Rorschach) with almost every part and the overall sums of the Progression task are positive and significant (or tending toward significance). We shall return to these findings in our discussion subsequently.

However, for the present and since our statistical tests pertaining to the relationship between regression, progression and sexual identification will consider only the overall scores, we may feel safe in stating that the Regression task and Progression task are unrelated.

The correlations of the Oscillation task with the other two component measures are, however, not consistent with our expectations. Reference to the last column and row of Table 4, where the correlations of the Oscillation task with the sub- and total scores of both the Regression and Progression tasks are presented, leads to the following conclusions. First, the Oscillation task is consistently and significantly correlated, in a negative direction, with the Progression task scores. It should be recalled here that a high score on the Oscillation task refers to a _long time_ for completion -- such a score therefore denoted _greater_ interference with the adequate performance of the requirements of the task. On the other hand, a low score means that it took the subject little time to complete the task and that, presumably, little interference was present. Hence, our results indicate that the more difficulty an individual has on the Oscillation task (i.e., the higher his score), the more difficulty he will have on the Progression task (i.e., the lower his score), and vice versa, the better he is on one, the better he will be on the other. Second, the relationship between the Oscillation task and Regression task scores is generally low in a negative direction. Two of the Regression task sub-scores (Cards VII and X) and the overall sum of Primary process tend toward significant correlations with the Oscillation task, and one of the sub-scores (Card VI) exhibits a significant (beyond .02 level) correlation with it.

Though the latter findings, concerning the Regression task scores, are only barely suggestive of a relationship, they nevertheless bear closer scrutiny. On the other hand, the consistency of results with respect to the Progression task scores provides strong evidence that the Oscillation task is not tapping a "pure" variable. In order to ascertain, with more confidence, the nature of the relationships between the Oscillation task and each of the other tasks, partial correlations were computed, extracting that part of the correlation of the Oscillation task with the others which could be attributed to performance, not on the Oscillation task itself, but on the pre-test given to all subjects. As was earlier reported, the correlation between the pre-test and the Oscillation task was .33. Table 5 presents the correlations with the Regression task and Progression task scores of the Oscillation task and the pre-test scores; and, in the last column of this table, the partial correlations -- with pre-test variance extracted -- are presented.

It may be seen that the correlations between the Oscillation task and Regression task scores, after the contribution from the Oscillation pre-test was partialled out, are negligible. On the other hand, the correlations between the Oscillation task and the Progression task after partialling remain, for the most part, significant. It would appear, then, that these two tasks are essentially related, even though the relationship is not great. This finding is contrary to our expectations of independence among all three components in the model of "regression in the service of the ego" which was presented. It necessitates, therefore, an alteration in the theory. In order to attempt a meaningful alteration, however, further analysis of the data must be done. In a subsequent section of this chapter (cf. Additional analyses) we shall return to this issue.

Thus, aside from the exception to which we have just made reference, our expectations regarding

Table 5

Correlations of Oscillation task scores and Oscillation pre-test scores with both Regression task scores and Progression task scores and partial correlations extracting Oscillation pre-test scores for all subjects (N = 81)

		Oscill task-r_{12}	pre-test r_{23}	partial[e] $r_{12.3}$
Regression tasks	I	08	05	NS
	II	-08	03	NS
	III	-01	06	NS
	IV	02	17	NS
	V	-15	03	NS
	VI	-26[b]	-11	-23[c]
	VII	-20[d]	-17	-15
	VIII	-10	-05	NS
	IX	-13	-20[d]	NS
	X	-20[d]	-12	-17
	pri-process sum	-19[d]	-06	-18[d]
	total R sum	-15	-03	NS

(continued on page 106)

Table 5

(continued)

	Oscill task-$^{r}12$	pre-test $^{r}23$	partial[e] $^{r}12.3$
Progression tasks			
neutrals 2 & 3	-24[c]	-21[d]	-18[d]
neutrals 4 & 5	-35[a]	-33[a]	-25[c]
neutrals sum 2 - 5	-33[a]	-30[a]	-27[b]
pri-pros 1 - 5	-20[d]	-15	-16
pri-pros 6 -10	-30[a]	-23[c]	-24[c]
pri-pros sum 1 -10	-27[b]	-20[d]	-22[c]
neutral plus pri-pro total sum	-30[a]	-23[c]	-24[c]

[a] Significant beyond .01 level.
[b] Significant beyond .02 level.
[c] Significant beyond .05 level.
[d] Significant beyond .10 level.
[e] Correlation between Oscillation task and pre-test, i.e., $^{r}13$, was .33.

Note: r partial reported numerically only if $^{r}12$ was originally significant, since partialling results in lower absolute value of r. All correlations reported to two decimal places without decimal point.

the tasks used were generally confirmed. We found no relationship to exist between the Regression task and the Progression task, nor between the Oscillation task and the Regression task. All three tasks were seen to exhibit high reliability coefficients, appearing to elicit consistent performances from the subjects throughout the various parts of the tasks. With respect to the Regression and Progression tasks, it was noted that the parts of the tasks seemed to contribute significantly to the overall score and that these contributions were fairly uniform from each part. On the other hand, we also found that questions were raised -- the answers to which require evidence not presently available -- concerning the validity of the Regression and Progression tasks. Although each of these tasks appears to tap an independent, unitary area of cognitive functioning, the relationship of these areas of functioning to our definitions of the regressive and progressive components of "regression in the service of the ego" is not yet clear.

There is a sense in which both tasks do tap the areas they were designed to tap -- at the same time, however, other interpretations are possible. So, for example, with reference to the Regression task, one may maintain that choosing Primary process alternatives is a measure of one's willingness to allow primary process, or its derivatives, a place in conscious experience, and that also choosing Neutral alternatives does not detract from this interpretation. The theoretical model does not state that the choice of one obviates the choice of the other. The fact that the choice of one is highly correlated with the choice of the other may only reflect that these two tendencies are, in actuality, correlated. Yet, on the other hand, one is on equally firm ground in maintaining that the correlation between these choices reflects the inadequacy of the measuring instrument in detecting differences which actually exist, that it is measuring some other variable -- say, "choice behavior" -- which is independent of willingness to allow either primary process or neutral material to enter conscious experience. In the light of our inability to produce, at this time, further evidence to bear on the issue, one may only choose between the possibilities on grounds other than empirical. This is, of course, an unsatisfactory state of affairs. Thus, in view of the situation, our application of these measuring instruments to the investigation of the hypotheses concerning sexual identification must be tempered by our knowledge of the possibility that, even though these two tasks may be reliably measuring separate, independent functions, these functions may not be what we have referred to as regression and progression.

Control for intelligence. Before turning to our application of these measures to the hypotheses concerning sexual identification, though, it is necessary to attempt to rule out an important source of variance in any investigation of cognitive variables. We are concerned here with the possibility of our measures being influenced by differences in intelligence in our subjects. As was previously mentioned, in order to control for such effects, if necessary, measures of intelligence -- as estimated by the College Qualification Test (CQT) -- were obtained. These scores are reported in stanine values and may range from 1, the lowest, through 9, the highest. Both Verbal sub-test and Total scores were computed between these CQT measures and the task measures for the 65 subjects. The results are presented in Table 6.

Perusal of the correlations reveals that most of them are near .00 or are extremely low, and only two of them (with Card V of the Regression task and

Table 6

Correlations of Verbal (sub-test) and Total CQT scores available for 65 subjects (total N=81) with Regression task, Progression task, and Oscillation task scores

	Regression task										pp	R
	I	II	III	IV	V	VI	VII	VIII	IX	X	sum	sum
CQT Verbal	-14	06	01	03	-23[d]	07	-06	04	09	-05	00	-01
CQT Total	-11	14	-02	11	-08	17	-09	17	13	03	08	13

	Progression task							Oscill
	Neutral sent.			Pri-pro sent.			Tot	task
	2,3	4,5	sum	1-5	6-10	sum	sum	score
CQT Verbal	14	12	15	00	05	03	15	-24[d]
CQT Total	09	02	06	00	04	02	08	-15

[d] Significant beyond .10 level.

Note: Correlations are given to two places without decimal point reported; for example, read -14 as -.14.

with Oscillation task) even approach significance (beyond .10 level, two-tailed). Since even these are not high enough to reach an acceptable level of significance for a prediction of no relationship, it would seem safe to conclude that intelligence, as measured by the CQT, was not a factor in determining the scores on the tasks.

Relationships stipulated by hypotheses

Two hypotheses were stated regarding the relationship between sexual identification and the regressive and progressive components of "regression in the service of the ego." It was predicted that a direct relationship would exist between the regressive component and a sexual identification which was predominantly feminine; and, it was predicted that a direct relationship would exist between the progressive component and a sexual identification which was predominantly masculine. The measures of the regressive and progressive components have been outlined in detail. To test the hypothesis concerning the regressive component, the overall sum of Primary process alternatives chosen on the Regression task was used. For the hypothesis concerning the progressive component, the overall sum of Primary process sentences constructed on the Progression task was used. Findings pertaining to the other measures obtained from these tasks will be reported in the following section (cf. Additional analyses).

The measure of sexual identification was obtained from responses to an adjective check list. An absolute score of identification with the mother and of identification with the father were obtained from the correspondence of ratings of adjectives describing one's own "ideal self" with ratings of one's mother and father. One point was given for each correspondence, and it was possible for scores to range from 0 through 79 -- that is, from complete disidentification with one or the other parent to complete identification. For the total group of subjects, the score distributions for the mother-identification and the father-identification variables had almost equivalent means and standard deviations. These are presented in Table 7 along with means and standard deviations on these two variables for males and females separately.

Table 7

Means and standard deviations of mother- and father-identification scores for total group of subjects and for males and females separately

Group	N	Mother-ident Mean	Mother-ident S.D.	Father-ident Mean	Father-ident S.D.
All subjects	81	49.04	11.29	48.59	12.76
Males	47	48.38	11.51	48.94	12.49
Females	34	49.94	10.91	48.12	13.10

If biological sex were the only determinant of sexual identification, one would expect that males and females should differ such that the former would obtain higher scores on the father-identification variable while females would obtain higher scores on the mother-identification variable. If this were so, then no precision would be gained by distinguishing subjects according to predominant identification, but one could instead use only biological sex as the distinguishing characteristic. It is, on the other hand, the assumption of this study that biological sex and sexual identification are _not_ synonomous. The equivalence of means for the males and females on both identification scores (as shown in Table 7) is consistent with our assumption. Further, since the groups appear to have similar distribution on these variables, as judged by the equivalence of both means and standard deviations, it was legitimate to calculate a derived score for _predominance_ in identification (Chang and Block, 1960). This derived score (d) refers to the difference, in any one subject, between the mother-identification and father-identification scores. Since the d score was obtained by subtracting the mother-identification score from the father-identification score (and then adding a constant to eliminate minus scores), a high d score refers to a predominant father-identification, while a low d score refers to a predominant mother-identification. A medium d score then refers to relatively equal identification with both parents. Thus, the total group of subjects was divided into three parts (N = 27 in each) corresponding to the d scores. Table 8 presents the means and standard deviations of the mother-identification, father-identification, and d scores for the three groups.

Table 8

Means and standard deviations of mother-identification, father-identification and d scores for high, medium and low d groups of subjects

Group	Mother-ident		Father-ident		d score[a]	
	Mean	S.D.	Mean	S.D.	Mean	S.D.
High d score	39.85	8.62	52.33	8.37	51.48	5.00
Medium d score	52.44	7.46	54.00	7.36	40.56	2.35
Low d score	54.82	11.10	39.44	15.40	23.63	10.10

[a] Difference (d) score obtained by: Father-ident minus mother-ident plus a constant (39) to eliminate minus score.

Note: Each of the three groups contained 27 subjects.

If one takes the medium d scores to represent a position of no identification predominance, or equivalent identification, it is interesting to note that the high d and low d scores appear to result, not from hyper-identification with one or the other parent -- for the mean on the predominant parent identification score is about the same as that seen in the medium d group for that parent -- but from a relative _dis_identification with the non-predominant parent.

These d scores were used to test the hypotheses concerning sexual identification and the regressive and progressive components of "regression in the service of the ego." Our predictions were, as we mentioned earlier, that predominance of feminine sexual identification (low d score) would be related to higher ability on the regressive component (sum of primary process alternatives chosen), while predominance of masculine sexual identification (high d score) would be related to higher ability on the progressive component (sum of primary process sentences).

Aside from the categorization of subjects according to _d_ scores of sexual identification predominance, it was also possible to explore the relationship of biological sex to the regressive and progressive components. Thus, the subjects were also categorized in this manner, according to whether they were male or female. Still further, in line with the exploratory nature of this study, it was decided to add a third basis for categorization along with sexual identification and sex. This was the variable of "cognitive control," which, as we mentioned earlier, could be assessed from the scores on the color-word interference (oscillation) task. Following the previous work of Klein (1954) and Holt (1957), subjects were characterized as having either "flexible" or "constricted" control styles. This was done by dividing the total group of subjects at the mean of the distribution of scores on the color-word interference task (on inspection, the distribution appeared to be normally dispersed), placing those subjects whose scores fell above 112.25 seconds in the constricted control group, and those whose scores fell below 112.25 seconds in the flexible control group.

In summary, then, the subjects were categorized along the following three dimensions: sexual identification predominance (high, medium, and low d), sex (male and female), and cognitive control (constricted and flexible control). It was then possible to test for differences among the various group means on both the Regression task scores of primary process alternatives chosen and the Progression task scores of primary process sentences written. The statistical model used was a fixed constants analysis of variance (McNemar, 1949). It should be recalled that our major emphasis here is on the relationships between the d scores and the regressive and progressive component scores. The other two classificatory variables, between sexes and between cognitive control groups, offer additional information regarding the nature of possible individual differences. Table 9 presents the analysis of variance on the regressive component scores, and Table 10 presents the analysis of variance on the progressive component scores.

From Table 9 we may see that our hypothesis concerning the relationship between sexual identification and the regressive component of "regression in the service of the ego" has not been confirmed. None of the main effects aside from d score, nor any of the interactions, produce significant values of F. It should be remembered, however, that caution in interpreting these findings -- or, rather, lack of findings -- must be exercised since some question regarding the validity of the measuring instrument of the regressive component has been raised. With this limita-

Table 9

Three-way analysis of variance of primary process sum scores on Regression task

Source	Sum of Sq.	df	Mean Sq.	F	p^a
Between d (identif)	41.73	2	20.87	---	NS
Between sex	10.94	1	10.94	---	NS
Between cc (cog cont)	10.64	1	10.64	---	NS
d x sex	22.38	2	11.19	---	NS
d x cc	74.24	2	37.12	1.52	NS
sex x cc	86.98	1	86.98	3.57	NS^c
d x sex x cc	63.23	2	31.62	1.30	NS
Error (corrected)[b]		63	24.39		
Total	310.14	74			

[a] Two-tailed.

[b] Correction made for unequal cell frequencies, following Walker and Lev (1953).

[c] $p = .10$

Note: Total N for this analysis was 75, omitting 6 subjects who did not have scores for at least one of the variables in the analysis.

tion in mind, we may nevertheless tentatively conclude that no support for the hypothesis was found, nor do the variables of sex or cognitive control appear to bear any relationship to the regressive component as it was herein measured.

Table 10

Three-way analysis of variance of sum of primary process sentences (1-10) on Progression task

Source	Sum of Sq.	df	Mean Sq.	F	p[a]
Between d (identif)	1088.60	2	544.30	1.82	NS
Between sex	109.38	1	109.38	---	NS
Between cc (cog cont)	45.20	1	45.20	---	NS
d x sex	745.90	2	372.95	1.24	NS
d x cc	42.00	2	21.00	---	NS
sex x cc	1189.43	1	1189.43	3.97	.05
d x sex x cc	311.67	2	155.84	---	NS
Error (corrected)[b]		66	299.73		
Total	3532.18	77			

[a] Two-tailed.

[b] Correction made for unequal cell frequencies, following Walker and Lev (1953).

Note: Total N for this analysis was 78, omitting 3 subjects who did not have scores for at least one of the variables in the analysis.

From Table 10 we may see further that our hypothesis concerning the relationship between sexual identification and the progressive component has also received no confirmation. Only the interaction between sex and cognitive control produced a significant (beyond the .05 level, two-tailed) F ratio. Interpretation of this latter finding will be reserved until further information is brought to bear on it (cf. Additional analyses). Again, remembering once more that some question concerning the validity of this measuring instrument has been raised, it would appear that no support for the hypothesis was received.

Additional analyses

In this section, keeping in the spirit of the exploratory nature of this study, we shall turn our attention to some of the findings which have arisen in the investigation but which were not related to any formal predictions or expectations. Some of the analyses to follow are of a post hoc nature, having been suggested by earlier findings already reported. Other aspects of the analyses have been suggested by the experimental design and the kinds of measures available on the subjects, but do not, in and of themselves, follow from any theoretical notions or prior findings. It is hoped that these data will both shed light on what has already been reported and suggest areas for further exploration and theoretical consideration.

A. The oscillation measure.

It may be recalled that, contrary to our expectations, we found that the oscillation score -- derived from one's mean score over four trials of the color-word interference test -- exhibited significant correlations with the sub-scores and overall scores of the Progression task. In an effort to ascertain the nature of these relationships more clearly, the group of subjects was broken down into sub-groups and the correlations were run once again. Table 11 presents the correlations obtained for males and females separately.

Table 11

Correlations of Oscillation Task
scores with
Progression task scores for males and females
separately

Group	N	Sum Neutrals	Sum Pri-pro	Total sum
Males	47	-18	-15	-17
Females	34	-43^b	-36^c	-39^c

^{b}Significant beyond .02 level.
^{c}Significant beyond .05 level.

Note: Correlations are given to two decimal places without decimal point reported; e.g., read -18 as -.18.

From Table 11 it appears that the females contribute a far greater amount of variance toward the correlation between the Oscillation and Progression tasks than do the males. Each of the correlations for the females is significant, while none are significant for the males.

We may attempt further to specify the nature of the relationship which was found between oscillation and progression by classifying the subjects in a different manner. Instead of forming sub-groups on the basis of sex, we may use the measure of sexual identification, the d scores, as the basis for classification. Thus, Table 12 presents the correlations between the Oscillation task and scores on the Progression task for the high, low, and medium d groups separately.

Once again we note striking differences in the resulting correlations. As reported in Table 12, the correlations between the Oscillation task and the Progression task scores are highly significant for the low d group, but none of the correlations for the high d or medium d groups even approaches significance. It would appear, then, from what we have so far seen, that the group which contributed most to the unexpected correlation between oscillation and progression was probably that group of females with low d scores.

Table 12

Correlations of Oscillation task scores
with Progression task scores for
high, medium, and low d groups

Group	N	Sum Neutrals	Sum Pri-pro	Total sum
High d	27	-18	-07	-11
Medium d	27	-12	-16	-16
Low d	27	-66[a]	-58[a]	-63[a]

[a] Significant beyond .01 level.

Note: Correlations are given to two decimal places without decimal point reported; e.g., read -18 as -.18.

We may, however, proceed further in our attempt to derive more specific knowledge about the correlation under question. As we have already pointed out, the scores on the Oscillation task itself lend themselves to categorization in terms of a cognitive control variable. So, just as we did previously, we may again dichotomize the entire subject group into those with flexible control and those with constricted control. Then, we may look once more at the correlation between the Oscillation task and the Progression task scores for these two sub-groups.[2] These results are presented in Table 13.

Table 13

Correlations of Oscillation task scores
with Progression task scores
for flexible and constricted
cognitive control groups

Group	N	Sum Neutrals	Sum Pri-pro	Total sum
Flexible	44	-03	-01	-09
Constricted	37	-28[d]	-39[b]	-38[b]

[b]Significant beyond .02 level.
[d]Significant beyond .10 level.

Note: Correlations are given to two places without decimal point reported; e.g., read -03 as -.03.

---

[2] Although the practice of dichotomizing the group on the basis of their scores on a task which is one of the two tasks being correlated, namely, the color-word interference or Oscillation task, may be open to question, there is no reason to believe that it would bias the resulting correlations in one or another direction. It would tend to make the resulting correlations lower than they might otherwise be -- since the variance on that variable is substantially reduced -- but there is, nevertheless, no statistical reason to assume that the effect would be different for the lower or upper half of the distribution.

We note that, once more, the differences between the groups are quite apparent. The correlations for the constricted control group are significant or, in the case of the sum of neutral sentences, tending toward significance. For the flexible group, however, the correlations are negligible.

To sum up, what appeared at first to be a general overall correlation between the two variables, oscillation and progression, appears to be the result of, or is most highly contributed to by, one sub-group of the sample. This group seems to be those females with low d scores (i.e., predominant mother-identification) and with a constricted cognitive control style. We hasten to add, however, that the data presented as the basis for this statement do not substantiate it. Our sample was not large enough to actually break it down into sub-groups on the basis of all three variables mentioned in order to compute correlation coefficients. Thus, we have no direct evidence that the significant correlation between the Oscillation task and the Progression task is mainly a result of the correlation present in low d, constricted control females. What has been presented, however, would certainly lead one to predict that it is, and serves, therefore, as the basis for a subsequent study. Further implications of this finding, if it were to be substantiated by later work, will be discussed in the next chapter.

B. The relationship of the Oscillation task to sexual identification.

Although our testing of the relationship between the regressive and progressive components of "regression in the service of the ego" and sexual identification was guided by predictions, we had no theoretical expectations with respect to the relationship of the latter to the oscillation component. Consequently, our analysis was strictly an exploratory one. We would, of course, be interested to know if a relationship did seem to exist, not only as it would shed light on a general theory of "regression in the service of the ego," but also as an aid to further understanding of the question which the preceding analyses have raised concerning the relationship between oscillation and progression. To undertake this analysis, though, a somewhat different statistical model was used than had been previously used. First, it did not seem advisable to use the flexible-constricted cognitive control dimension in this since the possible effects of a reduction of variance on the dimension being tested would be great.

Therefore, the analysis considered only the groupings on the basis of d scores and sex, making for a two-way rather than three-way analysis. Second, since we saw earlier that the Oscillation pre-test scores -- the straight reading of color names in black -- exhibited a significant positive correlation (.33) with the Oscillation task, it seemed important to exercise control over this source of variance. Thus, it was decided to use as the model for testing differences among means a two-way analysis of co-variance (Lindquist, 1953). The results of this analysis are presented in Table 14.

It may be immediately seen that the F ratios obtained by comparing the adjusted mean squares for the main effects and their interaction with that for the within variance estimate does not permit us to reject the null hypothesis. We may therefore conclude that no differences among the means of the groups arranged according to both sexual identification and sex seem to exist.

C. Further analysis of the relationship of the Regression task to sexual identification, sex, and cognitive control.

Although the analysis of the relationship

Table 14

Two-way analysis of covariance of Oscillation task scores (X), controlling for Oscillation pre-test scores (Y)

	Total	Within	Bet d	Bet sex	d x sex
Sum of products:(X)(Y)	4749.01	4562.49	-52.32	273.65	-34.81
Sum of squares: X	33641.90	31891.08	62.42	765.34	923.06
Sum of squares: Y	6311.87	6083.13	87.79	97.84	43.11
df	78	73	2	1	2
Adjusted sum of squares	30068.78	28469.11	188.02	403.40	998.79
df	77	72	2	1	2
Adjusted mean square		395.40	94.01	403.40	499.39
F			---	1.02	1.21
p[a]			NS	NS	NS

[a] Two-tailed.

Note: Total N for this analysis was 79, omitting 2 subjects who did not have scores on at least one of the variables in the analysis. Correction for unequal cell frequencies was not made; however, it seems highly doubtful that a correction would have made any appreciable difference in the F ratio since the necessary direct calculation of estimates of between variance (and its components) tends to err in the direction of higher between estimates (Lindquist, 1953, p. 323).

between the Regression task and sexual identification failed to confirm our hypothesis, it should be recalled that the measure of the regressive component, as stipulated by the hypothesis, was the sum of primary process alternatives chosen. However, we also saw in our analysis of the measuring instruments themselves, that this sum of chosen primary process alternatives was highly correlated with the overall measure generated from this task, that of total sum of chosen alternatives (total R sum). It therefore seemed appropriate to explore the possible relationship between this latter measure and sexual identification. In the same way as was done previously, then, a three-way fixed constants analysis of variance -- using sexual identification, sex, and cognitive control as the main effect variables -- was employed. Table 15 presents the results.

From these results it may be seen that, as before, none of the F ratios reaches significance, and we may conclude that no differences exist among the total R sum means of the various groups.

D. Further analysis of the relationship of the Progression task to sexual identification, sex, and cognitive control.

In the same manner as we have just done, exploration of the measures, other than that used in the test of the hypothesis earlier presented, which were generated from the Progression task was undertaken. It will be recalled that our analysis of the relation-

Table 15

Three-way analysis of variance

of total R sum scores on Regression task

Source	Sum of Sq.	df.	Mean Sq.	F	p[a]
Between d (identif)	166.19	2	83.09	---	NS
Between sex	75.85	1	75.85	---	NS
Between cc (cog cont)	8.99	1	8.99	---	NS
d x sex	43.11	2	21.55	---	NS
d x cc	154.92	2	77.46	---	NS
sex x cc	194.17	1	194.17	1.52	NS
d x sex x cc	218.14	2	109.07	---	NS
Error (corrected)[b]		63	127.91		
Total	861.37	74			

[a] Two-tailed.

[b] Correction made for unequal cell frequencies, following Walker and Lev (1953).

Note: Total N for this analysis was 75, omitting 6 subjects who did not have scores for at least one of the variables in the analysis.

ship between progression and sexual identification employed only the sum of sentences written with primary process sets of words on the Progression task. Our results indicated that only one treatment effect, the interaction of sex and cognitive control, produced a significant F ratio, while the others -- including the main effect between d scores stipulated by our hypothesis -- failed to reach significant values of F. It will be further recalled, though, that our analysis of this measure of the progressive component revealed significantly high correlations between the sum of primary process sentences and the sum of neutral sentences written, and between the sum of primary process sentences and the overall sum of all sentences written (primary process plus neutral). It was therefore decided to subject the two other generated measures, sum of neutral sentences and sum of all sentences (total sum of sentences), to the same statistical procedures as had been employed with the sum of primary process sentences. Thus, again using a three-way classification, by sexual identification, sex, and cognitive control, a fixed constants analysis of variance was run on each of the measures. The results are presented in Table 16 and Table 17.

From Table 16, the analysis of the sum of neutral sentences, we may observe that a significant interaction between sex and cognitive control (beyond .01 level, two-tailed) is again present, just as it was in the analysis of the sum of primary process sentences (cf. Table 10). However, aside from that, two of the main effects, sexual identification

Table 16

Three-way analysis of variance of sum of neutral sentences (2-5) on Progression task

Source	Sum of Sq.	df	Mean Sq.	F	p[a]
Between d (identif)	239.72	2	119.86	3.35	.05
Between sex	165.91	1	165.91	4.64	.05
Between cc (cog cont)	83.85	1	83.85	2.35	NS
d x sex	110.40	2	55.20	1.54	NS
d x cc	45.82	2	22.91	---	NS
sex x cc	274.37	1	274.37	7.67	.01
d x sex x cc	90.10	2	45.05	1.26	NS
Error (corrected)[b]		66	35.75		
Total	1010.17	77			

[a] Two-tailed.

[b] Correction for unequal cell frequencies made, following Walker and Lev (1953).

Note: Total N for this analysis was 78, omitting 3 subjects who did not have scores for at least one of the variables in the analysis.

Table 17

Three-way analysis of variance of total sum of sentences (primary process plus neutral) on Progression task

Source	Sum of Sq.	df	Mean Sq.	F	p[a]
Between d (identif)	2220.25	2	1110.13	3.28	.05
Between sex	1104.58	1	1104.58	3.26	NS[c]
Between cc (cog cont)	35.81	1	35.81	---	NS
d x sex	2674.07	2	1337.04	3.95	.05
d x cc	1.67	2	.84	---	NS
sex x cc	3714.65	1	3714.65	10.98	NS
d x sex x cc	1313.53	2	656.77	1.94	NS
Error (corrected)[b]		66	338.35		
Total	11064.56	77			

[a] Two-tailed.

[b] Corrected for unequal cell frequencies, following Walker and Lev (1953).

[c] p = .08

Note: Total N for this analysis was 78, omitting 3 subjects who did not have scores for at least one of the variables in the analysis.

predominance (d) and sex, produce F ratios significant beyond the .05 level (two-tailed). Turning to Table 17, the analysis of the total sum of sentences, it may be seen that once again the interaction between sex and cognitive control is significant (beyond .01 level), and as was the case in the analysis of the sum of neutral sentences just presented, sexual identification predominance (d) exhibits a significant difference among means (beyond .05 level), while the difference between sexes approaches significance (at approximately the .08 level). Further, we see the appearance of a heretofore unobserved significant interaction (beyond .05 level) between sexual identification predominance and sex.

From an overall point of view, we may perhaps find it profitable to look more closely at the results of this latter analysis, of the total sum of sentences (Table 17), since it reflects the joint results of the analysis of the sum of neutral sentences (Table 16) and of the earlier presented analysis of the sum of primary process sentences (Table 10).

Our initial interest was, in the light of our stated hypothesis, the possible differences which might arise among the sexual identification predominance means. Although our hypothesis did not predict the occurrence of such differences on the total sum of sentences, it was here that significant differences did occur. However, these differences were in a direction opposite from our general expectations. Instead of finding that the high d group (predominant sexual identification with father) had the highest scores, our results indicate that, of the three groups, their mean was lowest! Arranged in order from highest mean to lowest, the group means were: medium d = 197.75, low d = 178.60, and high d = 164.56. However, it should be recalled that this main effect difference must be qualified because of the significant interaction between d scores and sex. When arranged in this double classification, the differences among means take on more explicit meaning. Table 18 presents the means so arranged.

These statements must, however, be further qualified in the light of the consistently found significant interaction between sex and cognitive control. The difference between sex means on the total sum of sentences approached significance and was, in fact, significant (beyond .05 level) for the sum of neutral sentences (cf. Table 16). For the latter, the mean of the female group was 64.27, while the mean for the

Table 18

Means of sub-groups classified
by sex and d score on
total sum of sentences of Progression task

		High d	Med d	Low d	Row $\bar{X}$
Males	$\bar{X}$	167.30	196.89	148.00	170.71
	N	18	13	13	44
Females	$\bar{X}$	161.83	198.67	204.20	189.90
	N	9	12	13	34
Column	$\bar{X}$	164.56	197.75	178.60	180.30
	N	27	25	26	78

males was 56.67. On the other hand, we have found no significant differences on any of the measures for the main effect between cognitive controls. So then, looking once more at the results for the total sum of sentences (primary process plus neutral), we present in Table 19 the group means of males and females divided into flexible and constricted cognitive control categories.

Reference to the means presented in the body of the table reveals that the group scoring highest on total sum of sentences is the female, flexible control group (209.22). Then, in decreasing order,

Table 19

Means of sub-groups classified by sex
and cognitive control on
total sum of sentences of Progression task

		Males	Females	Row $\bar{X}$
Constricted cc	$\bar{X}$	186.58	170.58	178.59
	N	21	14	35
Flexible cc	$\bar{X}$	154.84	209.22	182.03
	N	23	20	43
Column	$\bar{X}$	170.71	189.90	180.30
	N	44	34	78

the means for the other groups are: male, constricted control = 186.58, female, constricted control = 170.58, and male, flexible control = 154.84.

Thus, although differences on this measure seem to arise depending upon the nature of the sexual identification (d score) of the individual, given a group of males in which sexual identification was held constant, we would expect that those with constricted cognitive control would score higher on this task than those with flexible control; however, given a group of females in which sexual identification was held constant, we would expect those with flexible control to score higher than those with constricted control.

This interaction is curious indeed, for, rather than observing some straightforward relationship between the variables of sex and cognitive control, we note an inverse relationship. This once again serves to underscore the individual differences which we found with respect to the Oscillation task. And, although it should be reemphasized here that our findings must be taken with caution until they are replicated, it nevertheless prods one to reevaluate the statements by Holt (1957) and Pine and Holt (1960) concerning the straightforward relationship between cognitive control styles and progression. We shall return to this subject in the next chapter.

CHAPTER 4

DISCUSSION

Our theoretical analysis and explication of the concept "regression in the service of the ego" led to a reformulation of it which attempted to take into consideration what appeared to be certain important criticisms of the extant description of the concept. We found it necessary to eliminate a number of characteristics which had been heretofore ascribed to "regression in the service of the ego" -- such as its *temporary* nature, its *partial* and *circumscribed* nature, and so on. It appeared that these characteristics either did not succeed in distinguishing the process in question from other, different processes, or -- and perhaps more important in the present investigation -- they raised obstacles to a satisfactory operationalization of it. Thus, the key concept of *time-limits* of the process was seen to evade operational translation, at least for the present, since, on the one hand, it did not seem possible to specify operations which could take this characteristic into consideration, and on the other, the very characteristic itself brought with it the problem of lack of independence of the operations designed to tap the various aspects of "regression in the service of the ego." Indeed, it was apparent that the ways in which "regression in the service of the ego" were presently measured, and, in fact, the way in which the concept was presently conceived, did not adequately cope with the problem of lack of independence of the measurements. It was seen that what accounted for this in great measure was the conceptualization of "regression in the service of the ego" as a process.

Our reformulation of it, however, seemed to cope with these problems, for we conceived of "regression in the service of the ego" as a complex ability rather than a process. Instead of speaking of an ongoing process which must, then, be tapped while it occurs, we spoke of an individual's having the requisite abilities which, when taken together, compose the one complex ability. Given two individuals, the one who had more of the requisite abilities would be more likely to "regress in the service of the ego" if and when inner demands and/or the nature of the environment required it. These requisite abilities, or as we called them, components, were three in number: regression, oscillation, and progression. We proceeded then to independently define each of these components and to offer independent operational translations of them. Our first task was, therefore, to demonstrate that these three components were empirically independent. We addressed ourselves to this task in Chapter 3, in the section entitled Measures of "regression in the service of the ego."

We found that each of the measurements of the three components appeared to be reliable, and that each seemed to tap a stable function. Further we found that, for the Regression and Progression tasks, the various parts or "sub-scores" of the tasks seemed to contribute equally and significantly to the overall scores, thus lending weight to a characterization of internal consistency for these tasks. Furthermore we saw that the Regression task and the Progression task did not, with the exception of two blots on the Regression task about which we shall subsequently speak, correlate with one another; neither did the Regression task and the Oscillation task correlate with each other. However, contrary to our expectations, the Oscillation task did exhibit significant, though small, correlations with the sub- and total scores of the Progression task. Further exploration of this latter finding, though, seemed to indicate that the correlations were being produced, or contributed to mainly by, one sub-group of the sample (females with predominant mother-identification and constricted control) -- though it was emphasized that this finding must be held in a quite tentative way until replication of it is done. Even so, it appeared that, at least for some if not most of the subjects, the correlation between the Oscillation task and the Progression task was not apparent. Thus, especially with respect to the Regression and Progression tasks, and less so with respect to the Oscillation task, it seemed safe to conclude that the tasks tapped unitary, independent cognitive functions. All of this was in line with our expectations concerning these tasks (except, as was mentioned, the individual differences in correlations between the Oscillation and Progression tasks).

At the same time, however, certain findings on the Regression and Progression tasks brought their validity into question. Regression, being defined as the ability to allow primary process material or its derivatives to enter consciousness, was measured by the number of primary process alternatives chosen on the Regression task (the forced-choice group Rorschach). It was found that scores on this variable were highly correlated with scores on the total number of alternatives chosen (primary process plus neutrals), so that the more primary process responses one chose, the more neutral responses one chose also. And, the proportions of these types of alternatives chosen were observed to be almost exactly what one would expect on the basis of chance alone. Thus, it could follow that the task, instead of measuring one's ability to allow primary process material into consciousness, was measuring one's willingness to choose alternatives be they primary process or neutral. This would then seem to shed doubt on the validity of the task. Nevertheless, a contrary alternative to this conclusion also exists based on the same findings. That is, the task _is_ measuring willingness to choose primary process alternatives, but that this willingness is in actuality highly correlated with one's willingness to choose neutral alternatives. Nothing in the theory states that the choice of primary process alternatives should obviate the choice of neutral alternatives. On the other hand, using hindsight admittedly, one could make the case that if primary process choices did obviate neutral choices -- as, of course, they did in some subjects -- then this in itself might be a sign of pathology. Interestingly enough, the only subject, about whom the examiner had any personal knowledge, who did choose primary process responses to the near exclusion of neutral responses (32 primary process out of 34 total choices) was in fact quite disturbed around the time of testing. He was disturbed enough so that he was referred for psychological treatment by one of the school officials after he (the student) had erupted during a class hour; and, this subject was also unable to cooperate during the administration of the color-word interference (Oscillation) test, stating that he felt too tense and upset to perform on it.

Were this speculation concerning the possible pathological implications of excluding neutral alternatives on this task true, then some real doubt would be cast on one of our earlier theoretical speculations about the nature of regression. We said that no meaningful distinction might be made between pathological and "non-pathological" regressions -- yet, it is this very distinction of which we are presently speaking. For, it may well be that the distinction does exist, contrary to our theoretical argument, and that it manifests itself on the

Regression task in the way we have just referred to -- namely, that pathological regression results in the choice of primary process alternatives to the exclusion of neutral ones, while non-pathological regression manifests itself in the ability to choose both primary process and neutral alternatives. Inability to regress, then, would be found in those few individuals who choose only neutral alternatives.

Needless to say, these speculations are only speculations and must be put to later test. For, it also might be that when we speak of so-called non-pathological regression, we are really speaking about an instance of a more general function, receptivity. This general function might be described as an "openness" to both inner and outer experiences, to experiences of both a dynamic, motivational association and relatively neutral experiences. Again, however, we may only take this as a possible lead for further theoretical formulation and empirical investigation.

But, we are nevertheless forced to also consider that the task itself may not have been measuring any regression at all (pathological or non-pathological), and to that extent it would be, for the purposes of this study, invalid. The task obviously is tapping some unitary function in a reliable way. But that function may merely be, perhaps, "choice behavior" (might it not even be "receptivity"?).

Until further investigation of this issue is made, though, we are left, in the presence of the data so far, with the question raised earlier whether (a) the task is invalid, i.e., measuring some other function than regression, or (b) the willingness to choose primary process alternatives and the willingness to choose neutral alternatives are, in actuality, correlated. It would seem too premature to offer a decision on this question at this point.

A similar problem arose with respect to the Progression task. Again, our definition of progression, which essentially focused on the ability to submit primary process material or its derivatives to secondary process functioning, dictated that we use, as our measure of progression, the sum of sentences written with primary process associated sets of words. It was found, however, that one's ability to do this was highly correlated with one's ability to function with neutral sets of words. Once more it would appear that we are faced with the possible invalidity of the test, for it might well be that the task, instead of measuring progression as it was defined, was merely measuring "sentence writing ability." Again, however, one may take an alternative position on the basis of the same data, for it might also be that the ability to function in terms of the secondary process with primary process material is, in actuality, correlated with the ability to function in terms of the secondary process with neutral material. It should be mentioned here that the theory outlined earlier does not negate this possibility. In fact, in our discussion of progression, we speculated that this very finding might well occur, although we did not predict it. We made the point in that discussion that the variable of progression, defined with respect to primary process material as the raw material used, might be an instance of a more general cognitive ability, that of maintaining secondary process functioning in the face of any kind of stimuli and any task requirements. If this were the case, then one's ability to maintain secondary process functioning in the face of primary process material or its derivatives would be expected to correlate with one's ability to do so in the face of essentially neutral material.

If this were the case, then an alteration of the theory would appear necessary. It should, however, be mentioned that no such revision can be meaningfully made until and unless the question of the measuring instrument's validity is answered. We are forced again, as we were in respect of the Regression task, to delay such an answer in the present investigation.

Turning to the tests of hypotheses concerning sexual identification, it will immediately be apparent that the foregoing discussion bears strongly on these results. If the tasks are valid, then we may feel safe in drawing conclusions from our results. On the other hand, if the tasks are not valid, then our conclusions must be guarded and cautious. We may feel safe in stating that the Regression and Progression tasks measured two distinct functions. We are not sure what these functions are, even though we have offered some tentative speculations. Even so, we found that no relationship seemed to exist between the Regression task and sexual identification. Nor, for that matter, did any relationship appear between the latter variable and either sex or cognitive control. Thus, if our theoretical derivations from psychoanalytic theory are, in fact, true, then further doubt is cast on the validity of our measuring instrument. On the other hand, if the validity of our measuring instrument is sound, then doubt is cast on the theoretical relationship postulated between the regressive component and predominant feminine identification. Only further investigation may provide evidence for accepting one of these two alternatives. It is obvious that a similar situation holds for the relationship between the Progression task and sexual identification. Regarding this, however, certain extremely interesting, if not predicted, findings did emerge. Taking these in a tentative way, we may still go on to discuss them in order to offer guidelines for future research in this area.

We shall direct our focus to the results obtained on the overall measure generated from the Progression task, that of total number of sentences written with all sets of words (primary process plus neutral). These results, as we have mentioned, may be taken to summarize those of the two separate measures, sum of primary process sentences and sum of neutral sentences, to the extent that these two were significantly and highly correlated with one another.

Thus, other things being equal, it was seen that a medium d score, or equal identification with both parents, was associated with the highest group scores on the Progression task. It would appear that an hypothesis might be advanced to the effect that the ability tapped by this task is a product of the positive identification with both parents, so that either there is one ability shared by both the masculine and feminine tendencies involved in performing the task, or there are two abilities (at least) necessary for performance on the task and the masculine and feminine tendencies each contribute equally. However, we have seen that this finding must be qualified, for when we ignore the medium d group, we find that for males and for females, better performance on the Progression task is associated with identification with the same sex parent, along with disidentification with the opposite sex parent. This, then, allows us to qualify the hypothesis just stated in the following manner: the single largest contributor in respect of identification to performance on this task is identification with the same sex parent; at the same time, to the extent that the opposite sex parent is also identified with, the task performance ability will be greater; but, predominant identification with the opposite sex parent is associated with poorer ability on the Progression task.

One may speculate regarding the theoretical basis, if one exists, for these relationships. Such speculation, within the framework of psychoanalytic theory, might follow a number of paths, however the likely one, in this writer's opinion, would proceed as follows. Predominant identification with the opposite sex parent is essentially a deviant or abnormal one (Freud, 1924), and it is often the case that it comes about as a defensive maneuver, in an attempt to "resolve" the Oedipus conflict and to repress the unacceptable feelings associated with it (Freud, 1922). On the other hand, the normal resolution of the Oedipus conflict results in a predominant identification with the same sex parent -- yet, it is still possible that degrees in predominance may exist. Freud consistently stressed his observation that "bisexual" attitudes may exist side by side in one individual without its necessarily being a sign of abnormality, and, even further, that one's basic, biological tendencies were both masculine and feminine (Freud, 1920). It is also the case, however, that on Freud's view, the complete resolution of the sexual identification conflicts begun in the pre-Oedipal phase of development, although rare, is heralded, when it occurs, by the total acceptance of masculinity in the male and of femininity in the female (Freud, 1937). The essential meanings of this total acceptance are, for the male, the final overcoming of castration anxiety and the ability to accept, without anxiety, a passive relationship with another man, and for the female, the genuine admittance to herself that she will never possess a penis and the acceptance of her essentially non-aggressive nature. On the other hand, Maslow (1954) has noted that there is present among individuals who have, as it were, done away with the anxiety attached to sexual identification with one's own sex, not only the freedom to be oneself fully, but also the increased freedom to accept certain aspects of the opposite sex within oneself without anxiety and defensiveness. This author states that "These [self-actualizing] people were all so certain of their maleness or femaleness that they did not mind taking on some of the cultural aspects of the opposite sex role... In these individuals the dichotomies are resolved, and the individual becomes both active and passive... both masculine and feminine..." (p. 245f). It is not an uncommon clinical observation that the male or female who feels insecure in his or her sexual identification -- as, for example, in the "Don Juan" syndrome in males -- will vigorously deny or otherwise defend against any suggestion of opposite sex traits or attitudes and will often be continually driven to "prove" that such a suggestion could not possibly be true.

Upon this theoretical model, then, one might base a tentative, post hoc hypothesis that, to the extent that the Progression task taps the ability to maintain secondary process functioning -- to take whatever material is presented, though it be unexpected or filled with primary process derivatives, and work productively with it -- to that extent should it be associated with a relative freedom from the control of unconscious determining tendencies; so that functioning on this task would reveal the extent to which one's secondary process is "autonomous" or "conflict-free" (Hartmann, 1951). From our statements concerning sexual identification, it may be seen that the more need there is to defend, by massive repression, against the most important aspect of sexuality -- identification with one's own sex (Freud, 1937) -- the less one would expect to find autonomous or conflict-free ego spheres of the kind necessary to perform the task under question. Therefore, if the sexual identification is predominantly with one's own sex, or with one's own sex and, equivalently, with the opposite sex, autonomous functioning of the secondary process would more likely be present, and scores on the Progression task would be, therefore, high; while, contrarily, if the sexual identification is predominantly with the opposite sex parent -- thereby allowing for the inference that defensive operations are greatly involved -- then relatively little autonomy of secondary process functioning would be present, and the Progression task scores would, consequently, be lower.

It should be stated here that the foregoing is admittedly an attempt to bring within the general realm of psychoanalytic theory the results which we obtained. However, it is not unusual for a major and too often correct criticism leveled at the theory to be, in effect, that it may "explain" equally well its successful and unsuccessful predictions -- thereby explaining nothing. We should not wish to be heir to such a criticism here; and for that reason, we must again stress the genuinely tentative nature of our after-the-fact attempt at explanation. In any case, no attempt will be made to explain *away* the lack of positive findings with respect to the Regression task and Oscillation task, nor the inability to confirm the psychoanalytic hypotheses concerning the relationship between femininity, *per se*, and regression (or receptivity) and between masculinity, per se, and progression (or maintaining of secondary process functioning).

It should also be mentioned, if only for the sake of completeness, that the curious interaction results between sex and cognitive control -- wherein males with constricted control scored higher on the Progression task than did males with flexible control, whereas the reverse was found for females -- still remains inexplicable, and we are forced to leave this problematic finding unaccounted for. Once again, though, we may raise the question of the validity of the measuring instrument -- yet this offers no cogent explanation of the finding, since, even if the Oscillation task were not measuring the variable it was intended to measure, this in itself would not explain the sex differences which resulted. Only further study of this variable may lead toward the understanding necessary to comprehend the meaning of our findings -- and, in fact, further study may obviate the necessity for explanation if the findings are not replicable. Even so, it may be readily seen that no simple or straightforward hypotheses -- such as Holt offers -- can be advanced regarding this measure at the present time.

Before turning our attention to some possible further explorations which have been suggested by this study, we shall briefly discuss another of the findings which have emerged in our results. Again, since this was not a predicted nor even thought of occurrence, our statements may only take the form of hypotheses for future investigation. We refer to the significant positive correlations which were consistently found between Cards VI and VII of the Rorschach and the various sub- and total scores of the Progression task (cf. Table 3). What may we say about them?

Investigations of the perhaps "intrinsic" meanings of Rorschach blots have begun to appear in the literature (cf., George, 1955; Rabin, 1959; Zax and Loiselle, 1960). These studies, though not consistent in their findings, seem to generally agree with some of the broad interpretations advanced for many of the blots by clinicians. Cards VI and VII have long been thought of, in general terms, as being associated with "masculinity" and "femininity" respectively (Phillips and Smith, 1953). Some empirical evidence has been gathered to support these interpretations (Davis and Bonier, 1960), although they are far from being considered as confirmed. Nevertheless, if we may assume that Card VI is somehow associated with masculinity, and Card VII with femininity, we may further say that one interpretation, which would appear to be clinically sound, of a heightened receptivity to proposed responses for these blots is that the subject would seem to be willing to allow the "meanings" of the blots to enter his conscious experience without apparently defending against them; while, in the same way, the rejection of responses offered for the blots may indicate a need to defend against their "meanings" in one way or another. Taking the argument one step further, we might hypothesize that the easy acceptance of masculine and feminine symbols as being veridical representations indicates a lack of anxiety in the area of masculine and feminine identification. Our earlier remarks concerning the results on the Progression task included a theoretical formulation to the effect that identification with the same sex parent or equal identification with both parents may result in an openness to both masculine and feminine tendencies in oneself, and that this openness could possibly account for the higher scores on the Progression task. It would therefore follow from the foregoing that scores on acceptance of primary process alternatives for both Cards VI and VII of the Regression task would be directly related to scores on the Progression task, since the blots, taken together, may be theoretically linked to the very same variables as the Progression task and may require, in order to be receptive, that the subject be accepting of both masculinity and femininity in a non-defensive manner. Needless to say, this hypothesis will require further testing of a more definitive sort.

Although we have mentioned, in passing, a number of studies which are stimulated by the present investigation, the most immediate task which seems to be dictated by our findings is the further exploration of the nature of the measuring devices herein employed. As we have said, the validity of these tasks has received some supporting evidence, but in our view this issue is far from resolved. First, in order to ascertain whether the components of "regression in the service of the ego" to which we have made reference are, in fact, independent functions, a factor analysis of the intercorrelations would seem to be indicated. This procedure will, hopefully, provide more evidence for a judgment of whether three and only three independent abilities were tapped -- and, it might be added here that such an analysis is already being planned and will be run within the very near future. Second, it would seem productive to compare the abilities being tapped by these our measures with those tapped by the Rorschach test itself when administered and scored according to Holt's (1959) system. Third, we must investigate more fully the theoretical additions which have been suggested to the effect that (a) regression may be subsumed under the cognitive variable of receptivity; (b) oscillation may be used to provide a measure of individual differences in terms of energy deployment and attention cathexis; and (c) progression may be subsumed under the cognitive variable of maintenance of secondary process functioning. Fourth, we must test the hypothesis that the presence of high ability to perform on each and every one of the three tasks proposed to measure the three components of "regression in the service of the ego" does result in good performance on other tasks said to require "regression in the service of the ego" essentially, such as artistic creativity, responsiveness to humor, and so on. Fifth, we must further explore the nature of sexual identification as it relates to a variety of cognitive functions, such as analytical and synthetic abilities, and of perceptual functions, such as field-independence and field-dependence; and, at the same time, the meanings, in terms of self-perception and perception of role, of same sex, opposite sex, and equal identification must be more definitively investigated.

It may be evident that a number of other studies might be suggested by our results and theoretical speculations, and it is hoped that many of these will, in due time, be specified. It would, then, seem appropriate to state what seems to us the obvious -- to the extent that the present work was conceived of as an exploratory one, to raise far more issues than it would attempt to resolve, its evaluation will be on the positive side; on the other hand, to the extent that its measuring instruments were admittedly imprecise, and to the extent that the theoretical model to which it was addressed still evades precise and complete formulation, its evaluation must be on the negative side. In any case, though, the issues with which it attempted to deal are obviously significant ones, and it is genuinely hoped that continued exploration of them will benefit from the present investigation.

CHAPTER 5

SUMMARY

The psychoanalytic concept "regression in the service of the ego" was submitted to detailed theoretical and formal scrutiny in an attempt to reformulate the concept in terms more clearly meeting empirical requirements. The concept, as it had been previously explicated and given operational meaning, was seemingly deficient in a number of respects. It appeared, therefore, necessary to eliminate certain characteristics heretofore ascribed to the concept's behavioral and experiential referents, since these characteristics either did not succeed in distinguishing the process in question from other, different processes, or they raised obstacles to a satisfactory operational translation of it. It was also apparent that the process, though conceived of as having distinguishable aspects or phases, when operationalized did not maintain the independence between these with respect to the ways in which they were measured. The obstacle within the theory to the fulfillment of such a necessary requirement appeared to be the concept's essential reference to a process which takes place in time. Though "regression in the service of the ego" is undoubtedly such a process, neither had time-limits for it been specified, nor had operations been used which might take this characteristic into consideration. The reformulation and operational translation of the concept presented in this study attempted to cope with these problems.

A shift in the conceptual model employed was necessary. Instead of speaking of an ongoing process which must, then, be tapped while it occurs, the reformulation spoke of a complex ability -- composed of three independent component abilities -- which existed as a disposition in individuals. Thus, given two individuals, the one who could more readily actualize the requisite abilities would be more likely to "regress in the service of the ego" if and when inner demands and/or the nature of the environment required it. Each of the component abilities -- which, when taken together, constitute the one complex -- was defined independently and given an independent operational translation.

Deductions from psychoanalytic theory suggested a relationship between two of the components and sexual identification. Hypotheses were advanced to the effect that regression would be associated with predominantly feminine identification, while progression would be associated with predominantly masculine identification. The third component, oscillation, was omitted from the tests of hypotheses.

Subjects were 81 undergraduate students, 47 males and 34 females, enrolled in two introductory psychology courses at Michigan State University. Each subject was given a score or classification for each of the following variables: ability to regress, ability to progress, ability to oscillate, sexual identification predominance, and cognitive control style. The latter was added to allow for exploration of individual differences which might present themselves.

First the results regarding the three component measures of "regression in the service of the ego" were presented. These, although generally in line with expectations, did nevertheless raise some important and as yet unanswered questions concerning the validity of the measures. Some theoretical speculations were advanced as to the possible interpretations of what the tasks might be measuring, and these were related to the general theory of "regression in the service of the ego." The hypotheses concerning sexual identification were not confirmed, however, these results cannot be definitively evaluated until the validity of the aforementioned tasks is established. Some extremely interesting tentative findings did emerge, however, regarding the relationships among the Progression task, sexual identification, sex, and cognitive control. These results generated further theoretical speculation about the relationship between one's ability to maintain secondary process functioning and the nature of one's sexual identification.

Since this study was conceived as an exploratory one and the first in a program of investigations, possible avenues for future work were described.

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APPENDIX A

The Regression task: response alternatives presented to subjects for Rorschach cards I-X[1]

Card I

Whole blot

primary process:

Grinning mask with a large mouth
Bird with ragged tail end -- tail feathers missing
Two whirling dancers, either men or women
Face of a wolf snarling
Gives a scary feeling
Woman (in middle) with large wings

neutral:

Bat flying in the air
Airplane coming in for landing
Animal head of some kind
Fancy kite in the sky

Part of blot

primary process:

Rear view of woman with transparent skirt
Shapely woman in thin negligee
Woman being crucified
Feeling of sadness about it
Two headed water creature

neutral:

Bell hanging in the steeple
Early American lamp base
Ballet dancer doing a turn
Hourglass with sand in it

---

[1] Responses are grouped according to categories of primary process and neutral. When presented to subjects they were randomized.

Card II

Whole blot

primary process:

Two clowns dressed as ladies
Animals in a bloody fight
Something angry about it
Two bears with roosters' heads
Two clowns yelling angrily at each other
Two very messy animals

neutral:[2]

Two people greeting each other
Clowns in the circus
Two 1920's college men in raccoon coats

Part of blot

primary process:

Dogs biting and clawing each other
Gives a warm, cuddly feeling
Two pups holding a castle up with their nose
Two bears kissing
Rocket ship (white space) with exhaust coming out rear end
X-ray of woman's internal sexual organs

neutral:

Two animals playing a game
Bridge over a canyon between two mountains
Airplane (white space) flying in clouds
Animal shaped book-ends

---

[2] Only three neutral responses were included here as the result of a typographical error made in constructing the form.

Card III

Whole blot

primary process:

Happy feeling, feel like moving
Two butlers pulling a crab apart
Two cooks making dinner
Two people washing mud and slime off their hands
Figures, having male or female shape
Two people fighting over object in center

neutral:

Two butlers bowing
Poodle dogs playing a game
Two natives sending messages on tom-tom
Two girls jumping rope

Part of blot

primary process:

Football helmet being lifted by two black beetles
Iron pot for cooking
Sting-ray without the tail
X-ray of woman's pelvis and sexual organs
Steel trap set to spring shut
Think of decay, desolation, bad feelings

neutral:

Indian basket sitting on ground
Upside-down lampshade
Foot-stool made of leather
House-fly viewed from the front

Card IV

Whole blot

primary process:

- Man-eating animal looking for food
- Gorilla from the back, sitting on a stump
- Man in a fancy mink coat
- Frankenstein monster
- Pretty threatening and frightening
- Giant with spinal column protruding below

neutral:

- Bat hanging upside down
- Japanese pagoda or temple
- Very fuzzy overcoat
- Fir tree

Part of blot

primary process:

- Rectal area of an animal
- Woman's genitals
- X-ray of a bullet wound
- Warm, cuddly feeling about it, kind of cute
- Flower, seems transparent, see both inside and outside
- Mouth of animal, protruding lips

neutral:

- Pansy in full bloom
- Butterfly with wings open
- An opened fan, probably Japanese
- Delta of a river

Card V

Whole blot

primary process:

Butterfly coming out of cocoon
Prehistoric animal that flies, descending on prey
Nice free feeling about it
Bird with rabbit's ears
Vampire bat looking for juicy victim
Dead bird that probably smells bad

neutral:

An arched bridge
Bird flying in the sky
Two book-ends made of metal
Seed from maple tree

Part of blot

primary process:

Two bulls charging at each other
Get active feeling, ready to go
Two animals stuck together at the head
Two legs of lamb ready to be cooked
Two animals rolling in mud
Two women with long hair, sun-bathing

neutral:

People sleeping in hammocks
Bird's wings
Two pendants with pins
Shoreline with four hills in distance

Card VI

Whole blot

primary process:

Feeling of quietness about, restful
Bird pulling an animal hide
Animal to be slaughtered for food
Animal skin with protruding back portion
Mother animal about to give birth
Hide of killed animal pinned to wall

neutral:

Building with beacon on top
Doll with arms out
Airplane that is flying
Public fountain in city square

Part of blot

primary process:

Snake with feathers
Goose hanging in butcher's window
Peacock tail feathers just opening, seen from behind
Primitive statue symbolizing potency and masculinity
Indian battle-axe or tommahawk
Gives feeling of pride and happiness

neutral:

Traffic beacon
Indian totem pole
Fancy candle stick with holder
Flying insect with wings outspread

Card VII

Whole blot

primary process:

- Girls with big mouths talking loudly
- Girls with dirty faces
- Male and female Indians dancing
- Girls staring at each other with hatred
- Gives kind of playful, cute feeling
- Two Indians dancing on a butterfly

neutral:

- Two rabbits sitting on rocks
- Collar for woman's dress
- Stone monument
- Two women talking to each other

Part of blot

primary process:

- Two furry animals with rears touching
- Woman's corset, old-fashioned
- Wounded moth lying on the ground
- Kind of barren feeling, sort of cold
- Rocket in middle being held back by two clouds
- Two furry dogs nuzzling and licking each other

neutral:

- Moth with wings outstretched
- Stone archway seen from the top
- Hinge to be used on a door
- open book

Card VIII

Whole blot

primary process:

- Two animals going into forest to mate
- Animals about to fight over their domain
- Feeling of upcoming danger, little bit scary
- Red rats climbing a mountain
- Two animals looking for food in forest
- Two rats in a city dump

neutral:

- Christmas tree ornament
- Family coat of arms or crest
- Old-time sailing ship with sails out full
- Forest scene with tree, rocks, and animals

Part of blot

primary process:

- Bloody shirt
- Gives warm, good feeling
- Mountains made of ice cream
- Scoops of ice cream and sherbet
- Japanese butterfly decoration hung by its tail
- Frilly woman's underthings

neutral:

- Pretty butterfly
- Colorful jacket
- Beautiful orchid
- Monument made of colored rock

Card IX

Whole blot

primary process:

Weird feeling, something bizarre about it
Witches and green smoke on top of pink cloud
Table decoration made of cake and ices
Two men by sulphur spring holding their noses
Bride and groom on wedding decoration
Explosion with fire and smoke

neutral:

An iris in full bloom
Fancy lamp in colorful design
Chinese vase and base for it
Undersea life with coral, seaweed, and water creatures

Part of blot

primary process:

Pink motorcycle
Cotton candy
Tail plumes of flamingo, seen from behind
New born Siamese-twins
Cloud from A-bomb blast
Positive, good feeling about it

neutral:

Caterpillar crawling along
Four pink balloons
Pink roses in bloom
Base of a fountain

Card X

Whole blot

primary process:

Feeding time at the aquarium
Animals going into Noah's ark, seen from the back
Springtime and the animals rolicking off in pairs
War among the animals and insects
Gives wild feeling, like just letting go
Crest with insects, animals, fish, and flowers

neutral:

Family coat of arms
Crystal chandelier
Picture of beautiful undersea life
Eiffel tower and Paris in background at night

Part of blot

primary process:

Two sea horses, back to back
Two women in pink nightgowns
Two wrestlers ready to pounce on each other
Something about it gives cautious feeling
Caterpillars standing erect and dancing
Body of cooked lobster ready to be eaten

neutral:

Two maps of state of California
Two people walking
Draperies opened up
Two fancy candlestick holders

APPENDIX B

The Progression task: word sets presented to subjects for sentence-writing trials

1. Dog, Picture, Sit, Nice
2. Book, Street, Walk, Smart
3. Paper, Door, Look, Special
4. Teeth, Gas, Bite, Warm
5. Vagina, Man, Rest Excited
6. Rear, Mouth, Smear, Timid
7. Bull, Girl, Pierce, Safe
8. Nipple, Odor, Suck, Wild
9. Statue, Water, Call, Large
10. Hat, Auto, Talk, Happy
11. Bowels, Chest, Drop, Quiet
12. Penis, Woman, Jump, Relaxed
13. Breasts, Dirt, Eat, Cold
14. Monster, Blanket, Fight, High
15. Octopus, Boy, Trap, Protected